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TOOLS, EQUIPMENT AND MACHINERY ADAPTED FOR THE VOCATIONAL EDUCATION AND EMPLOYMENT OF HANDICAPPED PEOPLE

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Wisconsin Vocational Studies Center
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Shell Lake, Wisconsin

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INTRODUCTION

This catalog has been prepared to assist in the vocational education and employment of individuals who are handicapped. We have collected descriptions and illustrations of modified tools, equipment and machinery. We have also included examples of adaptive devices which were developed to overcome an individual's specific handicaps in specific work or educational settings. Listed items were obtained not only from companies who produce and distribute adapted equipment, but also from individuals who have used their ingenuity to overcome unique training or employment barriers. Often, with a bit of creative problem solving, a disabled student or employer is no longer handicapped.

We feel that this catalog should not only serve as a guide to commercially available equipment but should also function as a stimulus to all of you who are responsible for the vocational education or employment of individuals who are handicapped. We hope to provide you with ideas and incentives to create your own solutions to educational and employment problems faced by handicapped persons.

ACKNOWLEDGMENTS

We would like to thank all the individuals who helped us prepare this catalog. We would especially like to acknowledge Dr. Lloyd Tindall, Supervisor, Handicapped Projects Unit, Wisconsin Vocational Studies Center, for his help in developing the proposal for this contract and advising us on its implementation. We would also like to thank Dr. Vasant Kumar, Coordinator, Office of Research, Grants and Contracts at Wisconsin Indianhead VTAE District, for his work in preparing the contract proposal and for supervising the subcontract work at Indianhead. A special thank you goes to Denise Wagner, Judy Peterson and Terri Bleck, WVSC and Val Konop, Indianhead VTAE District for their typing. Also a kudo to Terri Bleck for the cutting and mounting of the photographs. Our appreciation to the people who helped with the details of reading the catalog for print. Lastly, our thanks to all of you who contributed material for the catalog. Your interest and assistance is greatly appreciated.

Dear Reader:

It has been said that vocational educators are inflexible and unwilling to work with other professionals and employers to bring about necessary changes in their programs. This catalog is evidence that this perception is not true.

Vocational educators and employers have discovered that few, if any, changes are necessary in order to employ persons who are handicapped and that investments which are made are of benefit to all of us.

When changes are needed, this catalog can serve as a resource of ideas to make modifications. Some of the modifications found in the catalog concern changes in the work environment. Others are changes to specific products used at the worksite. Often, adaptations are custom-made for an individual.

In using the catalog, one should not be restricted by the categorization, but should review all possible entries to find the suitable adaptation.

The American Vocational Association urges vocational educators and employers to become acquainted with these materials and then to educate and hire handicapped persons. This catalog will assist all of us in reaching this goal.

Sincerely,

Eugene I. Lehrmann
President, American Vocational Association

c

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Wisconsin Vocational Studies Center
University of Wisconsin - Madison 964 Educational Sciences Building • Madison, WI 53706

Phone: 608-263-3696

Dear Vocational Instructor:

This catalog of modifications is a step towards the elimination of inequalities between the job opportunities for handicapped and non-handicapped individuals through the availability of modified tools, equipment and machinery. Overcoming these inequalities is more than physical changes. Acceptance and a willingness to understand and work with handicapped students on an equal basis are also key factors. Hopefully, this catalog will help to further the perception that people are more alike than different.

Often after making a modification for one student, instructors receive requests from other students for similar modifications. As you look through this catalog you may see items that will trigger your imagination. Let your imagination wander without feeling restricted by the categories or labels of a specific item. You may find that an item designed to overcome one problem can be used to overcome other problems. Students are a resource in themselves when it comes to modifying tools, equipment or machinery. Ask for their assistance in finding ways to adapt items to their individual needs.

Use this catalog as a starting point for selecting those modifications which are appropriate to your teaching situation. Instructors in other vocational areas may be able to assist you in implementing the modifications you wish to make. You in turn may have an expertise which will help them.

The catalog is not the sole answer to all problems, but can be an aid in the process of working with handicapped students. Hopefully it will be of value in developing your teaching techniques and strategies.

Sincerely,

Lloyd W. Tindall

Lloyd W. Tindall
Project Associate

LWT/jp

DISCLAIMERS

Endorsement

By including particular products in the catalog, we are indicating only that they exist. We have not tested or evaluated any of the products. We do not know how well they work, how durable they are, or how effective they would be in solving the education or employment problems of a specific individual.

Field Tested

We define "field test" as a formal evaluative process in which the effectiveness of a piece of equipment or a product was demonstrated in a controlled setting when compared to rival devices or to an appropriately selected control group which did not have access to these products.

Many contributors stated that their products were "field tested", but not whether this test was conducted formally in a controlled setting. In such cases we cited their answer verbatim. "Yes" answers alone may refer to any type of field test, not just formal field tests.

Patent

The reader should be aware that some products are being considered for or have a patent.

Prices

The prices have been listed when available. They are the prices in effect at the time we collected the information. It is likely that by the time you read this catalog, the prices on some of the products will be changed.

NOTE TO EMPLOYERS, TEACHERS, EMPLOYEES AND STUDENTS

Employers and employees, teachers and students, should have reasonable expectations of the products in the catalog. The equipment described in this catalog cannot solve all the problems, or eliminate all the barriers facing a handicapped person.

Likewise, an employer or teacher should not think that by purchasing a piece of adaptive machinery he or she has done all that is needed. Appropriate attitudes are very important. So is common sense. Different areas of work or study may be more difficult for everyone, regardless of handicap. A piece of equipment should not be viewed as the total answer. Proper identification of the problem, proper selection of equipment (if the problem warrants it), appropriate instruction in its use, correct installation, and suitable integration with other aspects of the training or employment environment are all factors which influence how helpful this catalog will be.

We view the catalog as a tool. We hope that it will not only provide you with useful information but will also give you ideas to help you adapt other machines and equipment.

If other pieces of machinery, equipment and tools besides those listed have been created, we did not know of them and regret that they were not included. The authors are interested in learning of any products which were regrettably left out. We would also like updated information on products appearing in the catalog.

ORGANIZATION OF THE CATALOG

The catalog page is designed to give essential information about a particular item. Each catalog page is divided for easy reading and for quick evaluation of the product's usefulness. The name of the item is at the top of the page. The items in the catalog are listed by functional use.

The Developer refers to the person or company responsible for creating the modification or adaptation.

The Contact Person is the person who can most easily give information about the product. Often this person is the same as the Developer.

The section labeled Where It Is Used is intended to help the reader decide if a product is relevant to his or her needs. We have attempted to list the occupational area(s) that were most affected. Often the item is applicable to many areas.

The Problem(s) It Overcomes section describes reasons why the product was produced.

Some of the items have been field tested. If they have, it is noted in the section Field Tested. The type of field testing varies among product developers.

Regulatory agency is indicated in the Regulatory Approval section.

The Warranty Provided section refers to products available commercially and indicates if a warranty is provided for that product. For specifics on length of warranty and what it covers, write to distributor.

The For Sale section gives the price of items when available. Where applicable, the estimated cost of materials for items that are individually made or not available commercially will be given. The prices may vary in your area. The amounts given are meant to be used only as a guide. Prices have possibly increased since the printing of this catalog. Please contact a distributor prior to sending a prepaid order.

The How It Works section explains how that catalog item solves the problem it was designed to overcome. This space also further explains the purpose of the item.

The photograph or sketch of the item described is on the left hand page. This will give the user a visual explanation of the product and an indication of how it works to eliminate a handicap.

For the user's convenience, there is a Cross-Reference section located at the front of the catalog that will make it possible to look up catalog items by disability categories and categories of use.

The Appendices list potential sources of additional information or assistance. There are also examples of how a work environment could be arranged to suit the needs of a disabled employee.

An Index can be found at the back of the catalog which lists the items in alphabetical order by product name.

GUIDE TO THE CROSS REFERENCES

Products in this catalog are applicable to a variety of people and skills. The cross references attempt to list the tools, equipment and machinery in relation to seven disability categories and 27 categories of use. Hopefully, this scheme will aid the reader in identifying products which are usable for a designated disability and skill area.

Products in the first cross reference have been placed into a disability area if the adaptation helps the person with that disability to more easily use the product. However, creative thinking will help you realize it will apply to other areas as well.

The following disability categories are used in the first cross reference:

Hearing Impaired
Learning Disabled
Mentally Retarded
Multiply Handicapped
Physically Handicapped
Speech Impaired
Visually Impaired

The second cross reference lists products according to use. The categories listed are the same as those in the Table of Contents.

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BEJED Pioneer Sound Probe 160
Infrared Listening System 380
Light Signal Device for the Hearing Impaired 170
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CRT Tracking Guide 220

Drill Jig 112

Drilling Jig for Improved Accuracy 390

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The Modification of a Handheld Heat Sealer 522

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Portable Magnetic Graphics Display Board 286

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Cathode Ray Tube Viewing System 214

Comfort and Communication Control Systems 306

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Computer Flowchart Symbol Stamps 216

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Earth Puncher and Spacer 328

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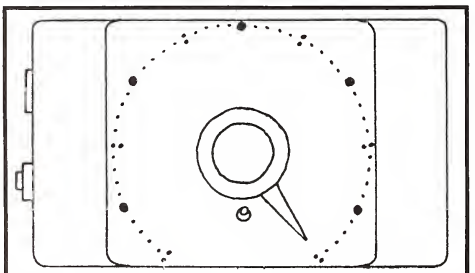
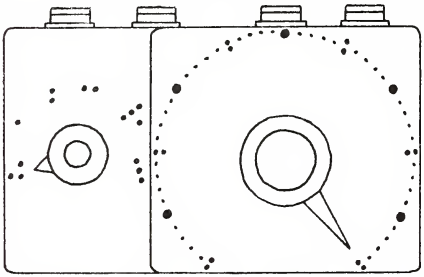


Single Channel AUD-A-METER



4-CHANNEL AUD-A-METER

Illustration courtesy of
Science for the Blind
Products

AUD-A-METER

DEVELOPER

CONTACT PERSON

Tom Benham
Science for the Blind
Products
Box 385
Wayne, PA 19087
(215) 687-3731

WHERE IT IS USED

Meter reading

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

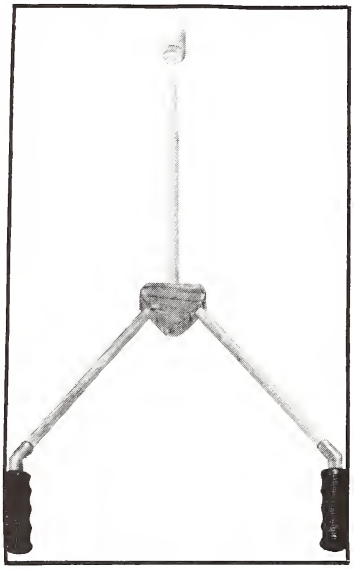
Science for the Blind Products
Box 385
Wayne, PA 19087

Single chann l AUD-A-METER	$ 90.00
4-Channel AUD-A-METER	$215.00

HOW IT WORKS

The Single Channel Aud-A-Meter may be connected across the terminals of any electrically driven visual meter movement in order to allow reading to be taken by correlating an auditory signal with a braille scale. Sensitivity of approximately 150 millivolts allows the Aud-A-Meter to be used satisfactorily with almost any visual meter movement, DC application only. The 4-channel Aud-A-Meter can be connected to four different meters at once and is particularly applicable to broadcast use, where several meters must be monitored.

(Information based on Science for the Blind literature.)



Photograph courtesy of
Modulations Co.

BICYCLE GRIP BILATERAL BEATER

DEVELOPER

Donna Chadwick

CONTACT PERSON

Modulations Co.
9 Sawmill Dr.
Westford, MA 01886
(617) 692-6590

WHERE IT IS USED

Play percussion instruments

PROBLEM(S) IT OVERCOMES

limited motor control of upper extremities

FIELD TESTED

yes

Northshore Consortium - Salem, MA

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

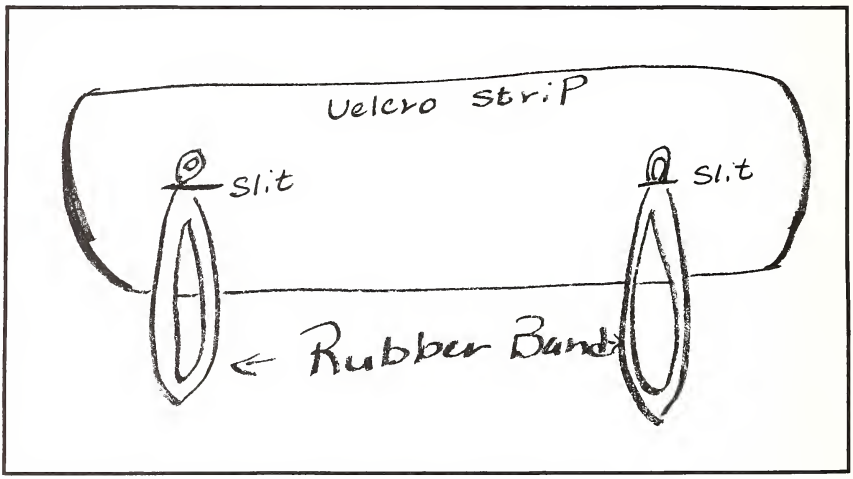
May be made at a minimal cost.

HOW IT WORKS

This beater is made from a 12-inch long wooden shaft, topped by a hard felt ball tip. This piece embeds into a wooden triangular joint, which also connects to two extended wooden handles. Any rubber handle, designed for use as a bicycle grip can be fitted over the wooden dowel ends. The apparatus is 20 inches long.

This design should not be used for work with people who are flexion bound.

(Information based on Clinically Adapted Instruments for the Multiply Handicapped, Clark and Chadwick.)



Sketch by Shirle Hoover

BRUSH OR PEN HOLDER

DEVELOPER

Shirle Hoover, ART ATC
West Texas Rehabilitation Center
4601 Hartford
Abilene, TX 79605
(915) 692-1633

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Painting
Writing

PROBLEM(S) IT OVERCOMES

difficulty grasping

HOW IT WORKS

Rubber bands are attached to a strip of velcro which wraps around the user's wrist. The rubber bands are used to secure the writing or drawing implement.

(Information provided by Shirle Hoover.)

FIELD TESTED

not applicable

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

May be made at a minimal cost.

Photograph not available

CAMERA HOLDING/OPERATING SYSTEM FOR HEMIPLEGIC PHOTOGRAPHER

DEVELOPER

Clinical Convenience Products
Contracting Serv. Div.
2070 Helena Street
Madison, WI 53704
(608) 251-2882

CONTACT PERSON

Don Warren
2070 Helena Street
Madison, WI 53704
(608) 251-2882

WHERE IT IS USED

Photography

PROBLEM(S) IT OVERCOMES

inability to hold the camera and operate the shutter, film winder and focus concurrently

FIELD TESTED

yes

used by individual it was designed for - professional photographer

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

Clinical Convenience Products
2070 Helena Street
Madison, WI 53704

$150.00

HOW IT WORKS

Camera is attached to a portable, wearable camera pod which was custom fitted to the specific individual. The pod could be attached, removed and operated by this individual. All camera functions and formats can then be controlled by the individual with one hand because pod anchors the camera firmly.

(Information provided by Ricardo Cerna, Rehabilitation Engineering Specialist, Wisconsin Division of Vocational Rehabilitation, and Don Warren.)

FOOT PICK

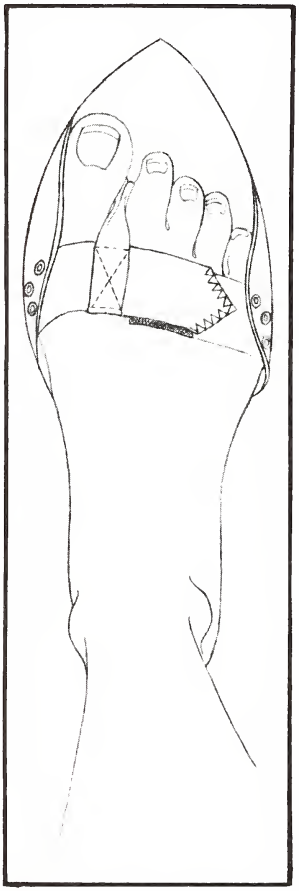


Illustration courtesy of
Modulations Co.

FOOT PICK

DEVELOPER

Cynthia Clark

CONTACT PERSON

Modulations Co.
9 Sawmill Drive
Westford, MA 01886
(617) 692-6590

WHERE IT IS USED

Play string instruments

PROBLEM(S) IT OVERCOMES

no hands; no motor control of fingers or hands

FIELD TESTED

yes

Hogan Regional Center - Hathorne, MA

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

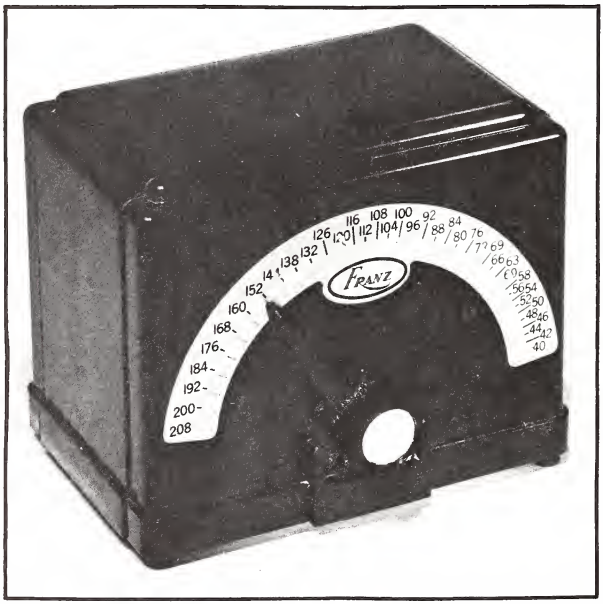
May be made at a minimal cost.

HOW IT WORKS

This pick is made of a plastic, curved plate which extends past the toes, curves up around the sides of the front part of the foot, and covers the sole of the front half of the foot without cramping any part. A 1-inch wide Velcro strap is riveted to the sides of the wide part of the pick which comes around the top of the foot. A second strap, between the big and second toes, adds security. The pick is applied to the dorsal surface of the foot and affixed with Velcro straps.
This design could also be adapted for use with a stump.

(Information based on Clinically Adapted Instruments for the Multiply Handicapped, Clark and Chadwick.)

FRANZ ELECTRIC METRONOME



Photograph courtesy of
American Foundation for
the Blind

FRANZ ELECTRIC METRONOME

DEVELOPER

CONTACT PERSON

Alex H. Townsend
American Foundation for the Blind
15 West 16th Street
New York, NY 10011
(212) 620-2169

WHERE IT IS USED

Arts
Recreation

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

yes

by panels of blind and visually impaired persons

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

American Foundation for the Blind
15 West 16th Street
New York, NY 10011

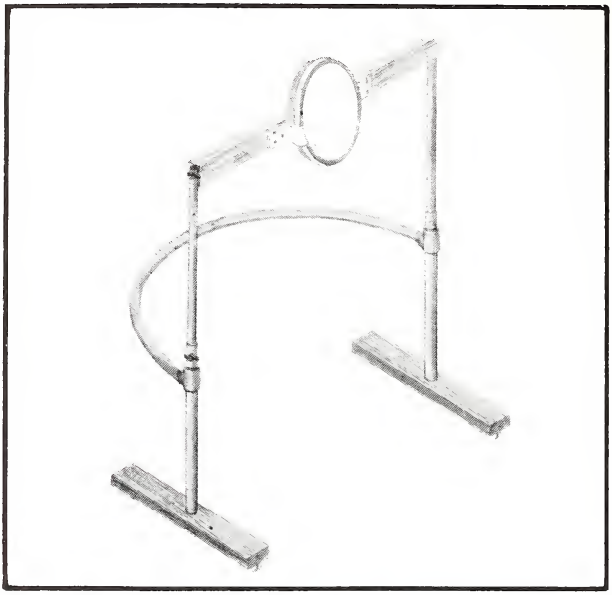
$38.00

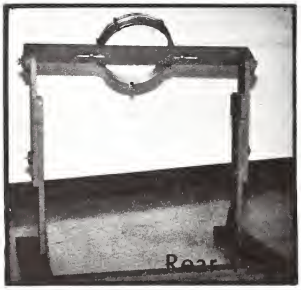
HOW IT WORKS

This is a standard electricametronome with a scale adapted for tactual reading. Its beats per minute run from 40 to 208. Double raised dots have been placed at 60, 72, 120 and 144 beats. Single raised dots are at 40, 96 and 208 beats. It is housed in a polished black plastic case.

(Information based on American Foundation for the Blind literature.)

HAND DRUM FRAME





Photographs courtesy of
Modulations Co.

HAND DRUM FRAME

DEVELOPER

Cynthia Clark

CONTACT PERSON

Modulations Co.
9 Sawmill Drive
Westford, MA 01886
(617) 692-6590

WHERE IT IS USED

Play percussion instruments

PROBLEM(S) IT OVERCOMES

not able to reach drum from wheelchair

FIELD TESTED

yes

Hogan Regional Center - Hathorne, MA

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

May be made at a minimal cost.

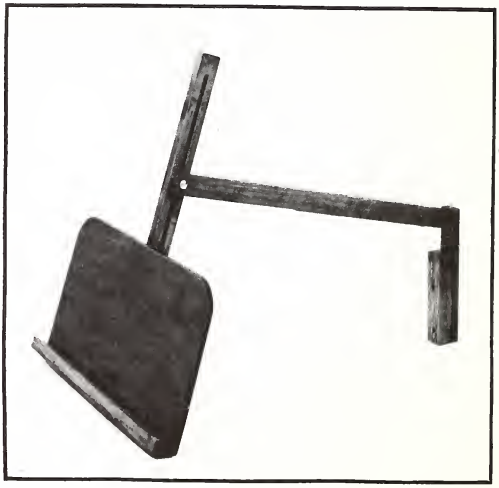
HOW IT WORKS

Sleeved pipe rodding or slotted adjustable wooden 2 by 4 legs are affixed to various lengths of 4 by 1 horizontal crosspieces; longer bars are appropriate for use over beds. Two Z-shaped clamps are mounted into slots on the crosspiece. The clamps slide and screw tightly to secure any standard 8-inch to 14-inch hand drum to the bar which is narrow enough to allow for proper resonation of the drum as it is played. The horizontal bar is attached to the legs with wing nuts so it can be tilted up to 90 degrees for even more precise positioning. A U-shaped stability brace at the base or halfway up the legs provides further grounding for the frame. For the pipe leg version, braking casters serve as feet; in the wooden model, 16-inch 2 by 4's give firm base support.

Another variation of this frame features two crescent clamps. With this variation, immediate expansion of the frame's width is possible.

This design can be completely constructed from acrylic with sleeved legs, strip heat and bent sheeting cut to a 4-inch width for the crosspiece and stability bar.

(Information based on Clinically Adapted Instruments for the Multiply Handicapped, Clark and Chadwick.)



Photographs courtesy of
American Printing House
for the Blind

MUSIC RACK FOR PARTIALLY VISIONED

DEVELOPER

Manufactured by:
American Printing House
for the Blind
1839 Frankfort Avenue
Louisville, KY 40206

CONTACT PERSON

Ralph E. McCracken
American Printing House
for the Blind
1839 Frankfort Avenue
Louisville, KY 40206
(502) 895-2405

WHERE IT IS USED

Arts
Recreation

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

U.S. Department of Health, Education and Welfare

WARRANTY PROVIDED

information not available

FOR SALE

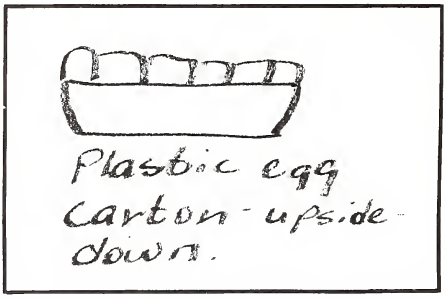
American Printing House for the Blind
1839 Frankfort Avenue
Louisville, KY 40206

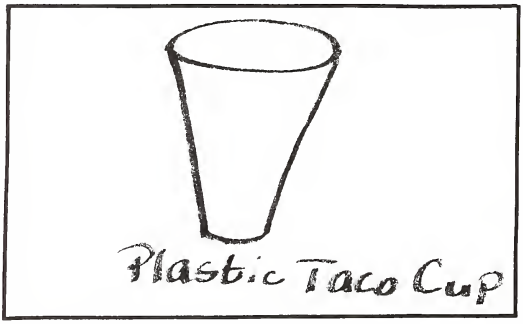
$31.00

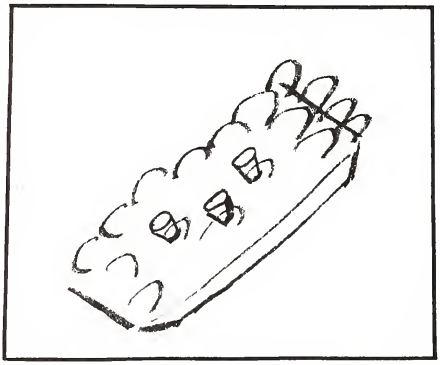
HOW IT WORKS

This device consists of a special wooden music rack, designed to fit any upright piano, for use by partially visioned people who can read ink-print music. The rack is so constructed that it is adjustable forward and backward, up and down, and it also tilts to the proper angle so that the music can be placed at the correct eye level and focal vision point of the player.

(Information based on American Printing House for the Blind literature.)







Sketch by Shirle Hoover

PAINT HOLDER

DEVELOPER

Shirle Hoover, ART ATC
West Texas Rehabilitation Center
4601 Hartford
Abilene, TX 79605
(915) 692-1633

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Painting

PROBLEM(S) IT OVERCOMES

possible spillage

FIELD TESTED

not applicable

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

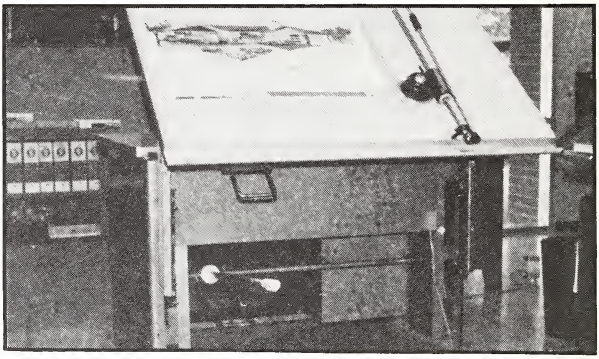
FOR SALE

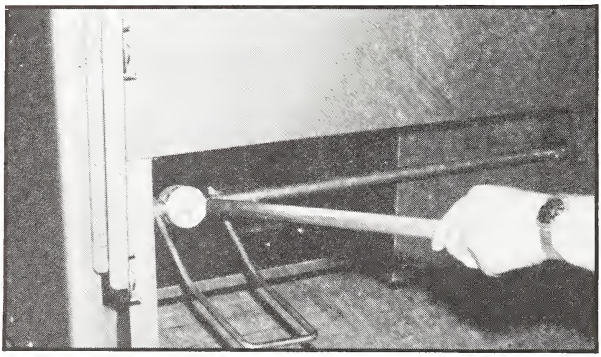
May be made at a minimal cost.

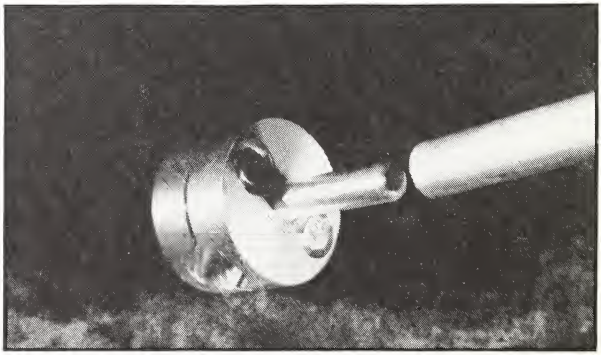
HOW IT WORKS

Openings are cut out of the top of an egg carton which is then taped to the work surface. Plastic cups with paint in them are placed in the carton openings. The cups usually come with lids so that paint can be stored in them.

(Information provided by Shirle Hoover.)







Photographs courtesy of
David F. Law, Jr.

PARAPLEGIC DRAFTING TABLE MODIFICATIONS

DEVELOPER

David F. Law, Jr.
Woodrow Wilson Rehab. Ctr.
Rehabilitation Engin. Dept.
Fishersville, VA 22939
(703) 885-9724

CONTACT PERSON

David F. Law, Jr.
Woodrow Wilson Rehab. Ctr.
Rehab. Engin. Dept.
Fishersville, VA 22939
(703) 885-9724

WHERE IT IS USED

Drafting

PROBLEM(S) IT OVERCOMES

difficulty experienced by paraplegics who try to use commercial drafting table

FIELD TESTED

yes

Woodrow Wilson Rehabilitation Center

REGULATORY APPROVAL

no

WARRANTY PROVIDED

no

FOR SALE

no

HOW IT WORKS

Clamp-on pin is attached to foot lever arm. The removable handle is kept under the table top and removed for use by wheelchair-bound individuals. By placing the handle over the clamp-on pin, the individual can raise and lower the drafting table using one-handed lever operation.

(Information provided by David F. Law, Jr.)

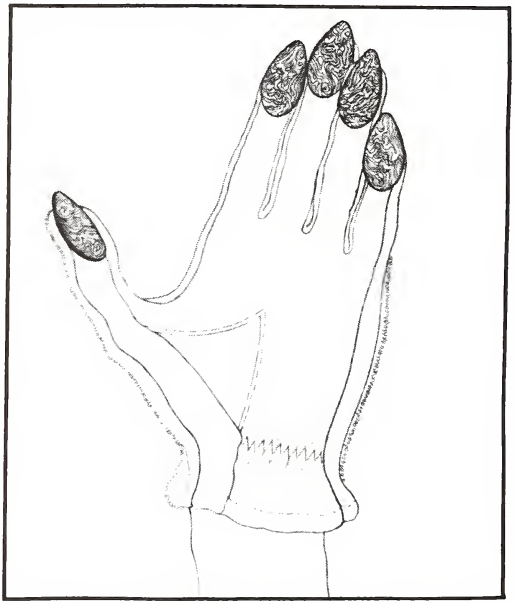


Illustration courtesy of
Modulations Co.

PICK GLOVE

DEVELOPER

Cynthia Clark

CONTACT PERSON

Modulations Co.
9 Sawmill Drive
Westford, MA 01886
(617) 692-6590

WHERE IT IS USED

Play string instruments

PROBLEM(S) IT OVERCOMES

limited finger grasp and motor control

FIELD TESTED

yes

Hogan Regional Center - Hathorne, MA

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

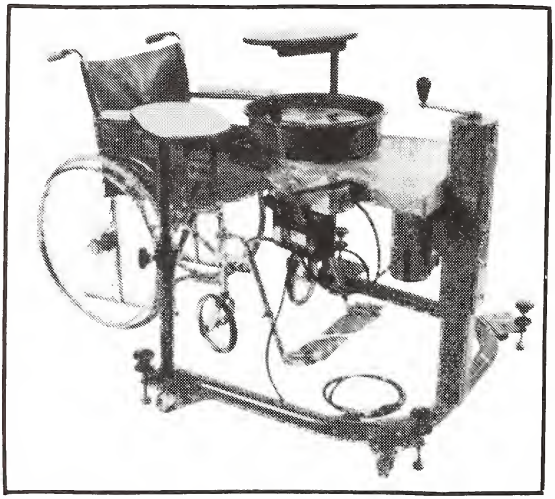
FOR SALE

May be made at a minimal cost.

HOW IT WORKS

Individual plastic picks are glued onto the ends of each glove finger; a Velcro strap at the wrist adjusts sizing; an open thumb area allows for easy dressing and undressing of the glove. When wearing the Pick Glove the user can pluck and or strum standard stringed instruments by simple movement of the fingers in a clawing fashion, as a unit or with each or any finger separately. A variation on the design would be to glue picks on the dorsal surface of the fingers of the glove for the purpose of getting movement via the strumming of the arm in a supine position. Color-coded picks add another degree of versatility.

(Information based on Clinically Adapted Instruments for the Multiply Handicapped, Clark and Chadwick.)



Photograph courtesy of AMACO

POTTER'S WHEEL

DEVELOPER

Robert Brent Corporation
Division of American Art Clay Co., Inc.

CONTACT PERSON

Edward J. Walsh
American Art Clay Co, Inc
4717 W. 16th Street
Indianapolis, IN 46222
(317) 244-6871

WHERE IT IS USED

Art

PROBLEM(S) IT OVERCOMES

restriction to a wheelchair; eliminates need for two wheels as both a handicapped and a nonhandicapped person can use it

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

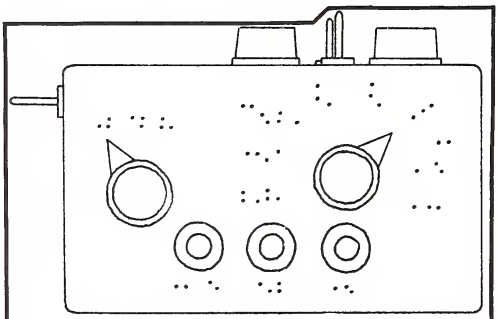
American Art Clay Co., Inc.
4717 W. 16th Street
Indianapolis, IN 46222

$749.00

HOW IT WORKS

Potter's wheel no. 16 has a crank at the back of the wheel which adjusts the throwing head height from 19½" to 34" from the floor. The wheel fits through a 36" wide door opening and can be used from a standing or sitting position. It rolls on four hard rubber swivel casters and four screw down feet raise the casters off the floor. The hard rubber feet can be used to level the wheel on uneven surfaces. Plastic lock knobs can be tightened against the caster plates to hold the wheel in place during use, this operation can be done using one hand. The splash pan is in two pieces for removing and cleaning. The 12" diameter, 3/4" bore head has concentric circles for centering and two bat pins. The hand lever/foot pedal, (which can be put on the floor or clamped to the tray at the side of the table), will operate the wheel from 0 to 200 rpms. It can be used by a left or right handed person as it can go clockwise or counter clockwise. There is a worktable behind the splash pan and two adjustable table tops for arm rests, centering, tools or rests for throwing while standing.

(Information based on AMACO catalog no. 80. October 1, 1979.)



T-10P PROFESSIONAL AUD-A-LEVEL
2 Connecting cables are supplied.

Illustration courtesy of
Science for the Blind
Products

PROFESSIONAL AUD-A-LEVEL

DEVELOPER

CONTACT PERSON

Tom Benham
Science for the Blind
Products
Box 385
Wayne, PA 19087
(215) 687-3731

WHERE IT IS USED

Professional recording or broadcasting

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

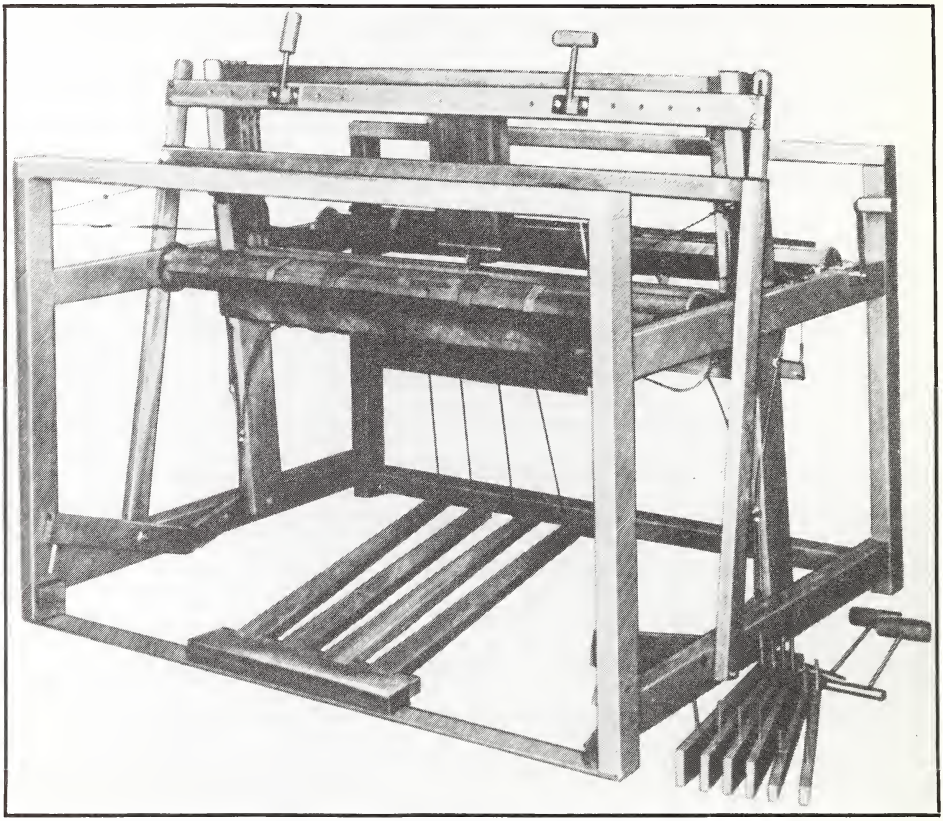
Science for the Blind Products
Box 385
Wayne, PA 19087

$235.00

HOW IT WORKS

The Professional Aud-A-Level enables operator to monitor audio level during recording or broadcasting. Accuracy is about equivalent to visual meters on most recorders. The Aud-A-Level is connected to the output jack of the recorder or if the recorder does not have a monitor jack active in record position, an internal connection must be made by a technician. This Professional Aud-A-Level is AC powered, with a switch which can be set for zero VU with positions for -20, -15, -10, -5, -2, 0, +2 and +3. It is also equipped with a selector switch which enables it to operate properly at +4 and +8 VU. There is a built-in stereo switch as well.

(Information based on Science for the Blind literature.)



Photograph courtesy of Bailey
Manufacturing Co.

REHABILITATION LOOM AND ACCESSORIES

DEVELOPER

Bailey Manufacturing Co.
118 Lee Street
Lodi, OH 44254
(216) 948-1080

CONTACT PERSON

Adelle
Bailey Manufacturing Co.
118 Lee Street
Lodi, OH 44254
(216) 948-1080

WHERE IT IS USED

Weaving

PROBLEM(S) IT OVERCOMES

unable to use conventional loom

FIELD TESTED

yes

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

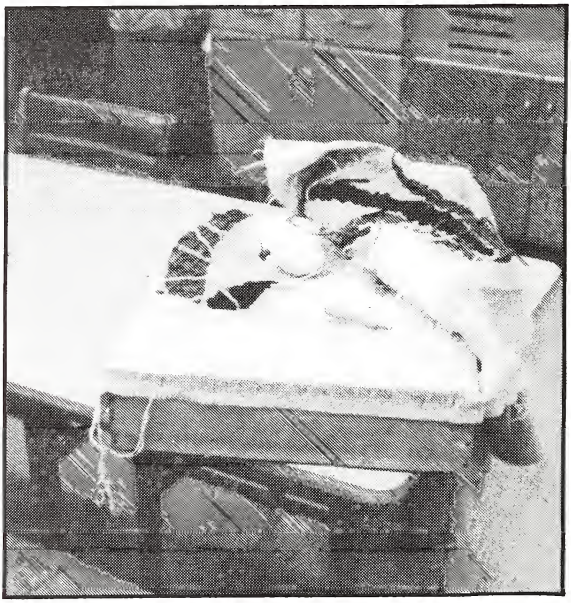
Bailey Manufacturing Co.
118 Lee St.
Lodi, OH 44254

$1120.00

HOW IT WORKS

A versatile four-harness, forty-inch rigid Jack Loom designed for the widest possible combination of uses to handle a user's physical characteristics. Designed so that persons sitting in wheelchairs may use the loom, including those with arm cranes.

(Information based on Bailey Catalog No. 0583 April 1, 1979; information also provided by Larry R. Strimple, Bailey).



RUG HOOKING HOLDER FOR THE WHEELCHAIR

DEVELOPER

Cindy Hrudka
Northern Wisconsin Center
for the Developmentally
Disabled
Box 340
Chippewa Falls, WI 54729
(715) 723-5542

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Art
Recreation

PROBLEM(S) IT OVERCOMES

difficulty keeping work far enough away from one's legs

FIELD TESTED

yes

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

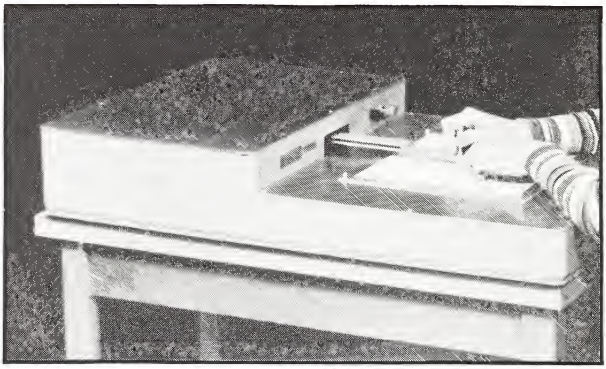
FOR SALE

May be made at a minimal cost.

HOW IT WORKS

The burlap is attached to the wooden frame. The wooden frame is deep to allow enough room to complete the punch needle motion. The frame rests on a tray over the arms of the wheelchair.

(Information based on personal interview.)



Photograph courtesy of
D. Reginald Traylor

SENSORY QUILL

DEVELOPER

Traylor Enterprises, Inc.
830 N.E. Loop 410
Suite 505
San Antonio, TX 78209
(512) 828-0203

CONTACT PERSON

D. Reginald Traylor
or M.L. Jones
Traylor Enterprises, Inc.
830 N.E. Loop 410
Suite 505
San Antonio, TX 78209
(512) 828-0203

WHERE IT IS USED

Arts
Construction
Drawing
Information Processing
Writing

PROBLEM(S) IT OVERCOMES

inability of a visually impaired person to see drawings, graphs, plans, maps, etc.

FIELD TESTED

yes

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

yes

FOR SALE

Traylor Enterprises, Inc.
830 N.E. Loop 410
Suite 505
San Antonio, TX 78209

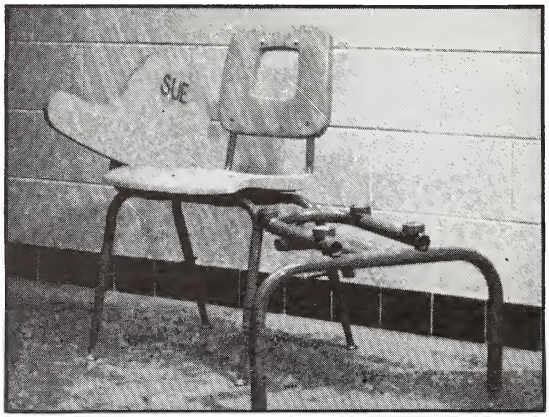
Institutional Model - $795
Personal Model - $425

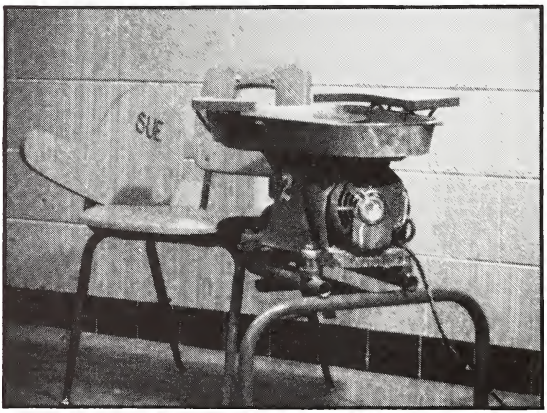
HOW IT WORKS

The user moves a stylus across the writing and drawing area. Wherever the stylus touches the paper or plastic, a raised image occurs. Script, graphics, drawings and maps can be produced quickly and easily in raised form, with no inversion necessary for tactual inspection. Whatever a sighted person sees in the nature of drawings, graphs, plans, maps, etc. can now be tactually "seen" by the visually handicapped. Importantly, the visually handicapped can generate their own raised line drawings, better communicating with the nonhandicapped.

(Information based on Traylor Enterprises, Inc. literature.)

SIT-DOWN POTTER'S WHEEL STAND





Photographs courtesy of
Richard Jensen

SIT-DOWN POTTER'S WHEEL STAND

DEVELOPER

Richard Jensen
122 Paoli Street
Verona, WI 53593
(608) 845-7904

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Art

PROBLEM(S) IT OVERCOMES

difficulty standing or sitting at a conventional potter's wheel

FIELD TESTED

yes

Madison LaFollette High School - Madison, WI

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

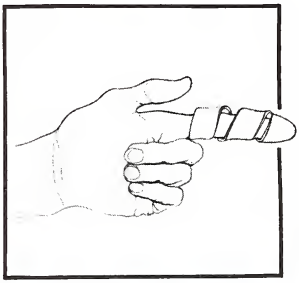
no

HOW IT WORKS

This wheel stand is a combination school desk and standard American Art and Clay Co. (AMACO) potter's wheel stand. The potter's wheel seat was removed and the legs of the wheel stand extended. A back style chair was attached to the stand to provide added back support for people with difficulty in upper and lower body control.
The standard arm desk in this style of chair can also be used to add additional body support. More support could be provided by using a car type seat and shoulder belt. The wheel itself can be removed from the stand and used in a standard manner.

(Information provided by Richard Jensen.)

SPIRAL FINGER PICK



Photographs courtesy of
Modulations Co.

SPIRAL FINGER PICK

DEVELOPER

Kathleen Massa

CONTACT PERSON

Modulations Co.
9 Sawmill Drive
Westford, MA 01886
(617) 692-6590

WHERE IT IS USED

Play string instruments

PROBLEM(S) IT OVERCOMES

limited finger grasp and muscle support

FIELD TESTED

yes

Hogan Regional Center - Hathorne, MA

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

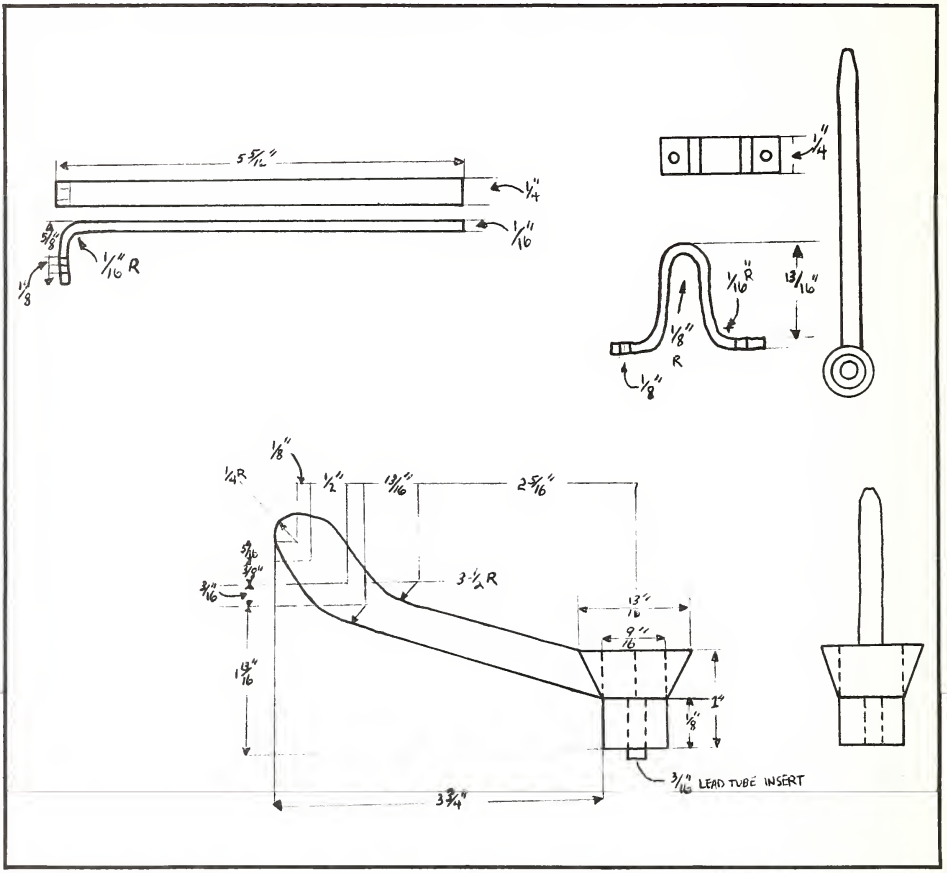
May be made at a minimal cost.

HOW IT WORKS

This pick curls around a finger spiral fashion for ease in putting on and taking off. Made from Orthoplast or moldable plastic, it can be custom fitted to even a contracted finger. The pick can be turned so its strumming end is either on the dorsal, ventral or lateral surface of the finger and several can be used together for work with different fingers in the same activity. A raking pattern with the pick in contact with the strings of standard instruments results in a strum. The Spiral Finger Pick can be used in any manner a standard pick is used. It could also be fashioned for a toe, or curled around the end of mouth or head sticks.
This pick should not be used with people who are spastic because it can increase spasticity.

(Information based on Clinically Adapted Instruments for the Multiply Handicapped, Clark and Chadwick.)

TAPE DECK MODIFICATION



(not drawn to scale)

Diagram courtesy of Bob Warren, redrawn by Terri Bleck, WVSC

TAPE DECK MODIFICATION

DEVELOPER

Bob Warren J.A.
United Cerebral Palsy of Akron
318 Water Street
Akron, OH 44308
(216) 376-6041

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Arts
Education
Listening

PROBLEM(S) IT OVERCOMES

inability to effectively use a tape cassette recorder with speed or consistency when recording or playing back information due to a small record button, and a mode switch utilizing rotary motion

FIELD TESTED

yes

United Cerebral Palsy - Akron, OH

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

no

HOW IT WORKS

The device was designed to increase ease of use of function switches of the cassette deck. The mode switch was redesigned to make selection easier by increasing the size and shape of the switch and decreasing the amount of concentrated force required to turn it. It was made of commerically available stock that was modified for specific results. The record button was modified by a spring steel push bar eliminating precise finger dexterity and persistent control necessary to push the button and turn the selection knob at the same time which was required for record mode.

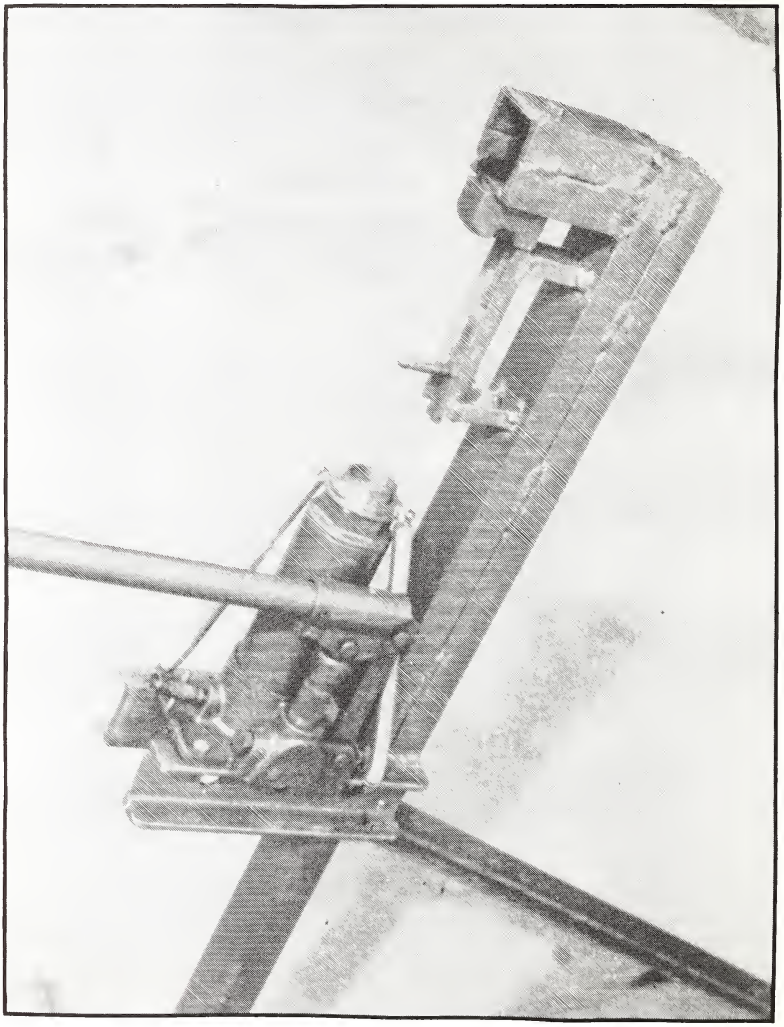
(Information provided by Bob Warren, UCP.)

ASSEMBLY

Crimping Parts in Position 88

Grasp Pad 90

Press Fitting Parts Together 92



Photograph courtesy of California Department of Rehabilitation

CRIMPING PARTS IN POSITION

DEVELOPER

Charles Eckles
Independent Contract
Consultant
(213) 360-4180

CONTACT PERSON

California Department of
Rehabilitation
830 "K" Street Mall
Sacramento, CA 95814
(916) 322-8500

WHERE IT IS USED

Assembly of swimming pool
equipment

PROBLEM(S) IT OVERCOMES

See: HOW IT WORKS

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

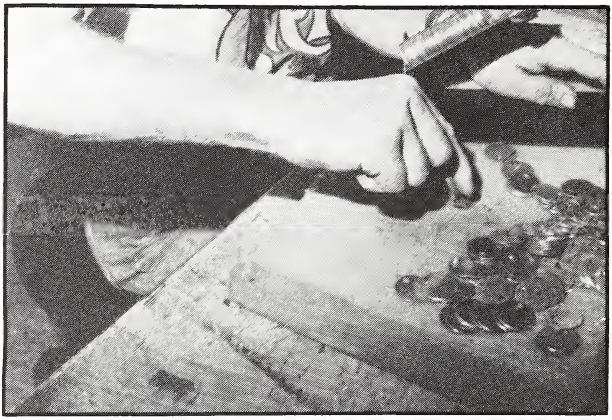
FOR SALE

Price dependent on available materials.

HOW IT WORKS

This device simplifies some of the operations in the assembling of such swimming pool equipment as pool skimmers and leaf rakes. Involved here is the insertion and crimping of metal plugs in the ends of the aluminum tubing. For this job, an ordinary 2½ ton automotive hydraulic jack is bolted onto the frame of a sturdy floor stand. The tubing with the plug inserted, is placed between the top of the jack and the top die, which has a pin to hold the proper alignment. When the jack is operated, it forces the tubing up and crimps it in place.

(Information based on A Handbook of Workshop Production Aids, California Department of Rehabilitation.)



Photograph courtesy of John H. Leslie, Jr.

GRASP PAD

DEVELOPER

Rehabilitation Engin. Ctr.
2021 North Old Manor
Wichita, KS 67208
(316) 688-1888

CONTACT PERSON

Leonard Anderson
Rehabilitation Engin. Ctr.
2021 North Old Manor
Wichita, KS 67208
(316) 688-1888

WHERE IT IS USED

Assembly
Benchwork
Packaging

PROBLEM(S) IT OVERCOMES

lack of grasp capability

FIELD TESTED

yes

Center Industries Corporation-Wichita, KS

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

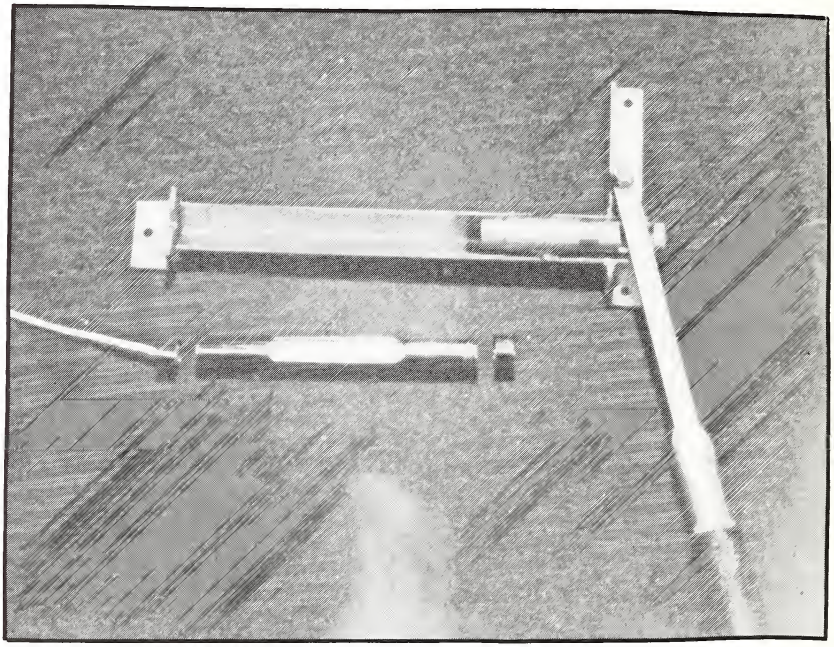
FOR SALE

May be made at a minimal cost.

HOW IT WORKS

A grasp pad is a piece of foam rubber of the size and resiliency desired placed on the normal assembly surface so that parts may be distributed on the pad prior to the selection for assembly. The pad may be used for holding parts or tools. This device allows the user to squeeze the foam rubber material and therefore, grasp small parts. It gives the user discrimination ability in selection of parts in jumbled piles.
Based upon field testing, the use of the grasp pad appears to improve performance in almost all cases. The increased performance was greater for items most difficult to be picked up. Further, and even more remarkable, the most severely handicapped persons showed the greatest increase in performance.

(Information provided by John H. Leslie, Jr., Rehabilitation Engineering Center.)



Photograph courtesy of California Department of Rehabilitation

PRESS FITTING PARTS TOGETHER

DEVELOPER

Charles Eckles
Independent Contract
Consultant
(213) 360-4180

CONTACT PERSON

California Department of
Rehabilitation
830 "K" Street Mall
Sacramento, CA 95814
(916) 322-8500

WHERE IT IS USED

Assembly of swimming pool equipment

PROBLEM(S) IT OVERCOMES

lack of hand strength

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

May be made at a minimal cost.

HOW IT WORKS

This device is designed to simplify the fitting of two metal caps on the ends of swimming pool thermometers. An inexpensive hand-press and holding jig is used. The thermometer and caps are positioned in the press with the thermocouple tube extending through a slotted cutout in the fixed end of the press. A light, uniform pressure on the press handle forces both end caps on the thermometer body at the same time.

(Information based on A Handbook of Workshop Production Aids, California Department of Rehabilitation.)

ASSESSMENT

Scanning Aid 96

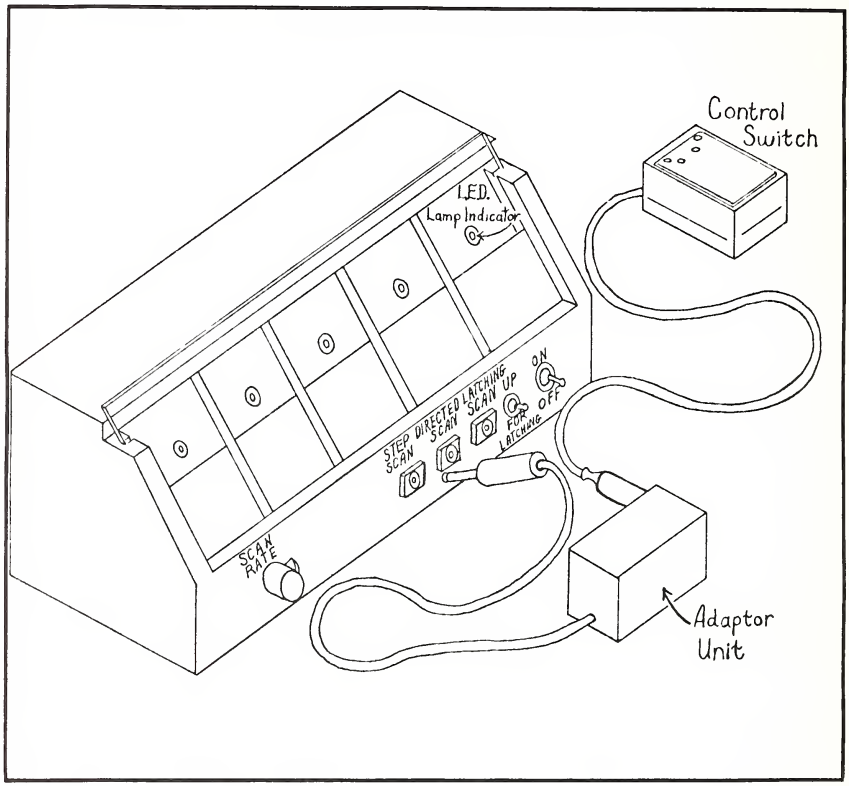


Illustration courtesy of
Carol Schaeffler

SCANNING AID

DEVELOPER

Carol Schaeffler
John Mauro
United Cerebral Palsy
622 Foster Avenue
Brooklyn, NY 11230
(212) 859-8850

CONTACT PERSON

Carol Schaeffler
United Cerebral Palsy
622 Foster Avenue
Brooklyn, NY 11230
(212) 859-8850

WHERE IT IS USED

Assessment
On the job

PROBLEM(S) IT OVERCOMES

difficulty assessing how an individual can best operate electronic equipment prior to the introduction of major commercially available systems

FIELD TESTED

yes

in process at United Cerebral Palsy

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

no

HOW IT WORKS

This device was designed to help evaluate an individual's optimal means to operate an electronic scanning aid.
To operate a scanning device in one of three possible modes, an individual activates a control switch.
A simple adaptor unit provides access to many commercially available inputs. The adaptor unit gives the individual the opportunity to use and compare a wide selection of control switches. The adaptor unit is interfaced with a receptacle for a particular scan mode on the scanning aid. The aid scans in 3 modes: step scan, directed scan, or latching scan. In "step" scanning, the indicator moves through one item on the display each time the input switch is activated. In directed scanning, the indicator moves through the display items while the input is being activated. In the latching scan mode, the indicator moves automatically through the display and stops when the input is activated by the user.
The scan speed can be adjusted to meet individual needs. The aid scans through five display panels in a linear fashion. Each panel has an LED indicator lamp. A Plexiglas cover can be removed to change the items in each display panel.

(Information provided by Carol Schaeffler.)

AUTOMOBILE REPAIR

Engine Tuneup Meter with Auditory Output 100

Modified Gauges 102

Tire Gauge 104

Torque Wrenches 106

Photograph courtesy of J.C.
Swail

ENGINE TUNEUP METER WITH AUDITORY OUTPUT

DEVELOPER

J.C. Swail
National Research Council
M-50
Dee R182 Montreal Road
Ottawa Ontario
Canada
K1A OR8

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Automobile Repair

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

yes

Canadian National Institute for the Blind-Toronto, Canada

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

no

HOW IT WORKS

This product is a modification of Heathkit CM2045. The visual meter was replaced with an auditory and tactile readout.

(Information provided by J.C. Swail, N.R.C.)

Photograph not available

MODIFIED GAUGES

DEVELOPER

CONTACT PERSON

Tom Benham
Science for the Blind
Products
Box 385
Wayne, PA 19087
(215) 687-3731

WHERE IT IS USED

Automotive Repair

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

Science for the Blind Products
Box 385
Wayne, PA 19087

HOW IT WORKS

These fuel, vacuum and pressure gauges can be used in automotive or auto air-conditioning service. They have all been modified for the blind technician. Gauges of your choice will be adapted if possible - consult Science for the Blind Products before choosing.

(Information based on Science for the Blind literature.)

TIRE GAUGE

Photograph not available

TIRE GAUGE

DEVELOPER

CONTACT PERSON

Tom Benham
Science for the Blind
Products
Box 385
Wayne, PA 19087
(215) 687-3731

WHERE IT IS USED

Checking tire pressure

PROBLEM(S) IT OVERCOMES

visual impairment

HOW IT WORKS

A standard gauge has been modified with notches on the metal rod that projects from the end of the gauge when pressure is applied from the tire valve.

(Information based on Science for the Blind literature.)

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

Science for the Blind Products
Box 385
Wayne, PA 19087

$7.50

Photograph not available

TORQUE WRENCHES

DEVELOPER

CONTACT PERSON

Tom Benham
Science for the Blind
Products
Box 385
Wayne, PA 19087
(215) 687-3731

WHERE IT IS USED

Automotive Repair

PROBLEM(S) IT OVERCOMES

visual impairment

HOW IT WORKS

These wrenches feature micrometer-type adjustment to any torque value within their range. Torque is indicated mechanically by an audible sound or "click" and a sudden release, followed by several degrees of free movement. Ruggedly built, they are also light in weight and well balanced. Compact heads permit use in narrow working quarters.

(Information based on Science for the Blind literature.)

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

Science for the Blind Products
Box 385
Wayne, PA 19087

BENCHWORK

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Photograph courtesy of R.A.
Weisgerber

ALIGNING A HANDSAW

DEVELOPER

R.A. Weisgerber
American Institutes for Research in the Behavioral Sciences
1791 Arastradero Road
Palo Alto, CA 94302
(415) 493-3550

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Benchwork

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

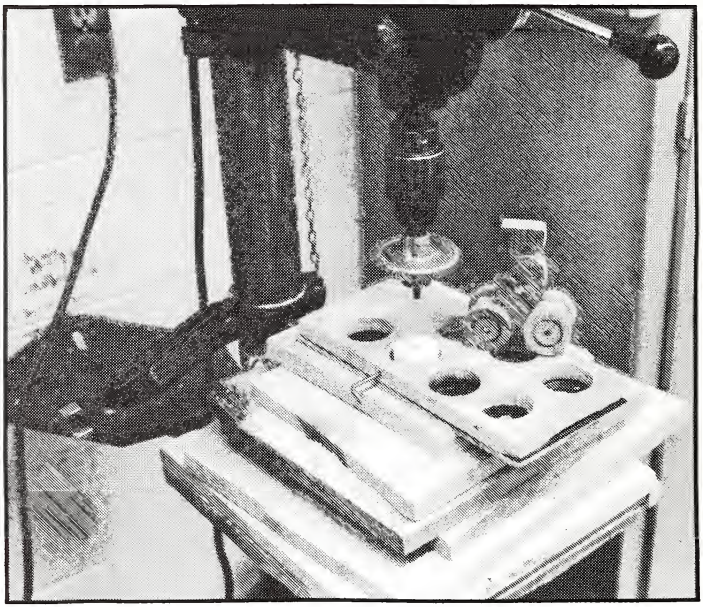
FOR SALE

May be made at a minimal cost.

HOW IT WORKS

A carpenter's square set atop of the wood to be cut is used to position the saw and assure a straight cut.

(Information provided by R.A. Weisgerber.)



DRILL JIG

DEVELOPER

John Wenstadt
Northern Wisconsin Center for the Developmentally Disabled
Box 340
Chippewa Falls, WI 54729
(715) 723-5542

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Benchwork

PROBLEM(S) IT OVERCOMES

limited control of arm and hand movement

FIELD TESTED

yes

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

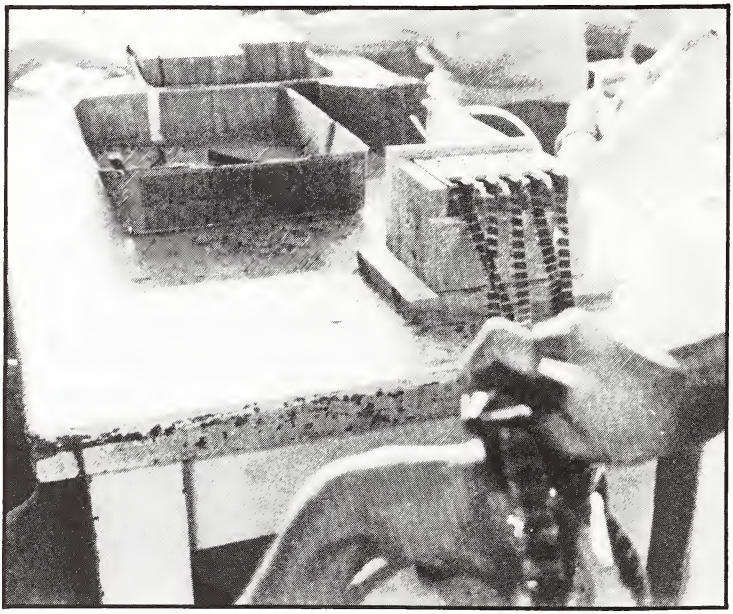
FOR SALE

May be made at a minimal cost.

HOW IT WORKS

The round wood piece (wheel) fits in the jig, a round area of a larger size. The wood is secured by an L-screw. The drill bit is lined up with the center of the wheel and a hole drilled. It is possible to keep hands a safe distance away from the drill.

(Information based on personal interview.)



Photograph courtesy of
Mark Stephenson

FIXTURES FOR HOLDING TAPE CARTRIDGES

DEVELOPER

Mark Stephenson
Occupational Services, Inc.
17 Redwood Street
Chambersburg, PA 17201

CONTACT PERSON

WHERE IT IS USED

Benchwork

PROBLEM(S) IT OVERCOMES

slow rate of production

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

May be made at a minimal cost.

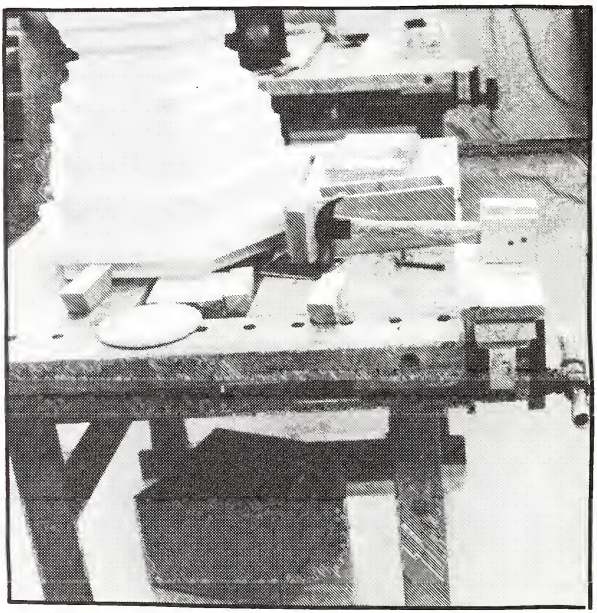
HOW IT WORKS

This fixture is designed to hold microfilm tape cartridges so that they may be stripped of their microfilm. In an assembly line operation, leaders are removed from tape cartridges. Cartridges are inserted into fixtures. Tape is pulled from 5-10 cartridges, tail leaders are cut and cartridges removed from fixture.

Materials: 3/4" pine shelving board
10 d common nails

Using the cartridges as a guide, make a wooden box that is open on top. Allow just enough room in the front of the box for the tape to exit through the opening in the cartridge.

(Information provided by Mark Stephenson.)



HAMMER AIMER

DEVELOPER

John Wenstadt
Northern Wisconsin Center for the Developmentally Disabled
Box 340
Chippewa Falls, WI 54729
(715) 723-5542

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Benchwork

PROBLEM(S) IT OVERCOMES

limited hand or arm control

FIELD TESTED

yes

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

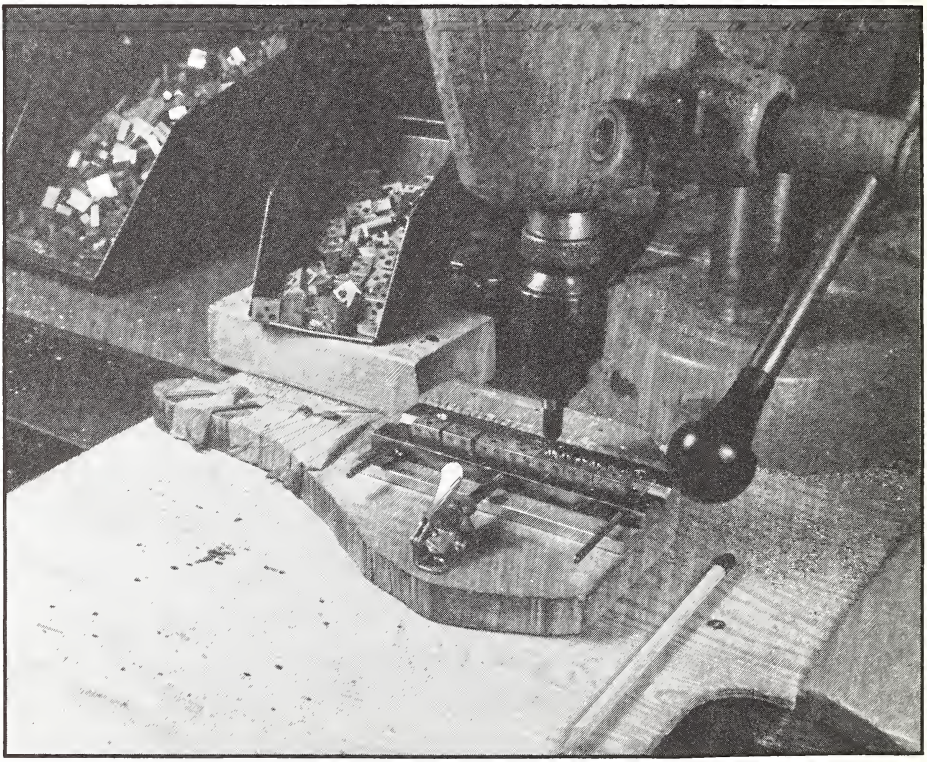
FOR SALE

May be made at a minimal cost.

HOW IT WORKS

After the nail has been placed, someone with limited nailing accuracy can finish the process. The hammer pivots at the end of its handle on a rod going through it. The rod goes into two blocks of wood located on either side of the handle.

(Information based on personal interview.)



Photograph courtesy of Albert
E. Swarts, P.E.

A HOLDING FIXTURE FOR DEBURRING DRILLED HOLES IN BRASS BLOCKS

DEVELOPER

Albert E. Swarts, P.E.
Richard L. Biddy, Dir.
Vocational Industrial Center - (Houston)
Donald R. Smith, PH.D.
Texas A & M University - (College Station)

CONTACT PERSON

Albert E. Swarts, P.E.
Vocational Industrial Ctr
The Institute for Rehabilitation and Research
2809 Main Street
Houston, TX 77002
(713) 797-1440

WHERE IT IS USED

Assembly
Benchwork

PROBLEM(S) IT OVERCOMES

lower extremity weakness

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

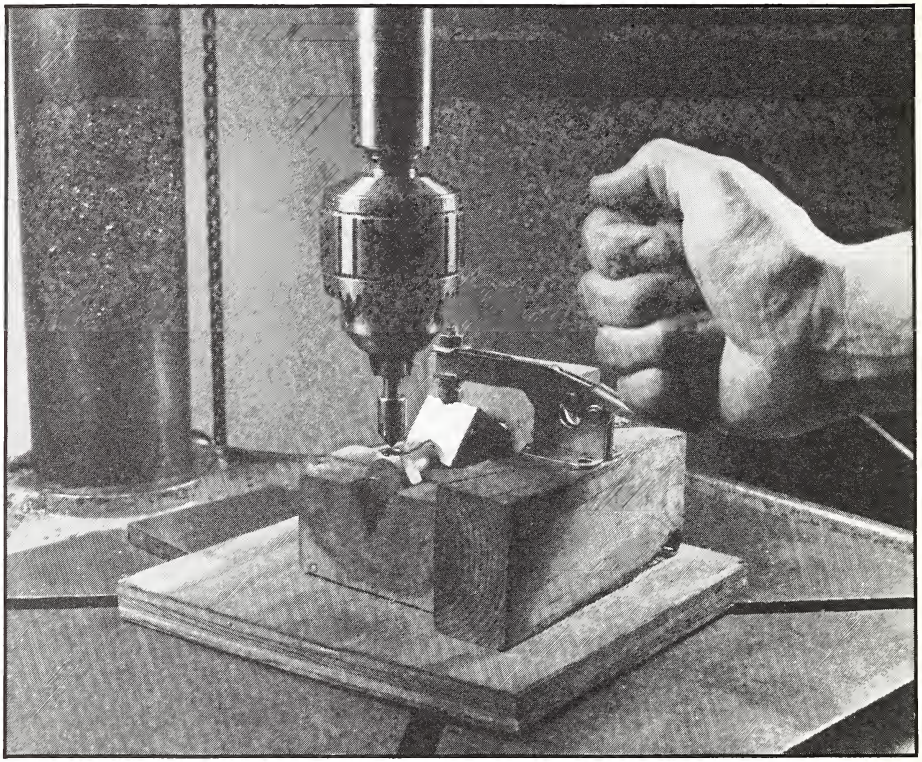
May be made at a minimal cost.

HOW IT WORKS

The holding fixture is designed to accommodate 7 blocks at a time in a proper orientation for deburring. It deburres 3 surfaces of the block by using a quick-release mechanism that will allow the blocks to be oriented quickly after a surface has been completed. A clamping device holds the blocks in a fixed position when deburring the holes in the first surface. With a movement of the clamp, the 7 blocks will fall into position for the deburring of the holes in the second surface. To deburr holes in the third surface, the user must handle each of the blocks manually. When deburring of the holes in the third surface is complete, tipping the holding fixture over a drop chute empties the clip.

The clip and the clamping mechanism are mounted on a wooden base that may be moved by the user while deburring takes place. In this manner, the users' hands are well removed from the deburring tool and the hazard of hand injury is minimized.

(Information based on Examples of Jig and Fixture Design as Applied to the Severely Disabled Functioning in a Sheltered Workshop, Biddy, Smith and Swarts.)



Photograph courtesy of Albert
E. Swarts, P.E.

A HOLDING FIXTURE FOR DEBURRING HOLES IN BOLT HEADS

DEVELOPER

Albert E. Swarts, P.E.
Richard L. Biddy, Dir.
Vocational Industrial Center - (Houston)
Donald R. Smith, PH.D.
Texas A & M University - (College Station)

CONTACT PERSON

Albert E. Swarts, P.E.
Vocational Industrial Ctr
Institute for Rehabilitation and Research
2809 Main Street
Houston, TX 77002
(713) 797-1440

WHERE IT IS USED

Assembly
Benchwork

PROBLEM(S) IT OVERCOMES

use of only one hand; upper extremity weakness

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

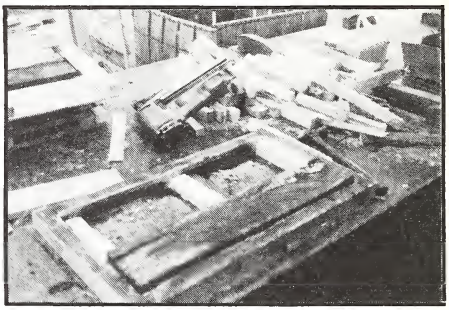
FOR SALE

May be made at a minimal cost.

HOW IT WORKS

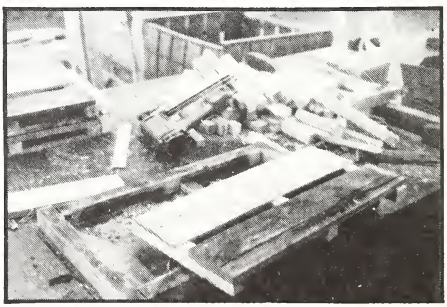
The wood fixture is designed to use quick acting toggle clamps that accurately position and locate the bolt for deburring operations. By actuating the toggle and rotating the bolt head, both ends of the drilled hole can be deburred quickly and accurately.
The job for which this fixture was designed required 1000 bolt heads to be deburred and there was little chance that a job like this would be done again. Thus, the engineer constructed the fixture out of wood and used a standard toggle clamp.

(Information based on Examples of Jig and Fixture Design as Applied to the Severely Disabled Functioning in a Sheltered Workshop, Biddy, Smith and Swarts.)



Jig with 4 boards in place

Boards of platform are being fixed in place with a staple gun



The platform is being removed

JIG FOR A STAND THAT HOLDS HEAVY BAGS

DEVELOPER

Gary Larson
Plant Manager of the
Superior Vocations Ctr.
431 Tower Avenue
Superior, WI 54880
(715) 392-6171

CONTACT PERSON

Gary Larson or
Toby Johnson, Exec. Dir.
Superior Vocations Center
431 Tower Avenue
Superior, WI 54880
(715) 392-6171

WHERE IT IS USED

Assembly
Benchwork

PROBLEM(S) IT OVERCOMES

difficulty in maintaining consistency in assembling the bag stands as required by manufacturer

FIELD TESTED

yes

in use at the Superior Vocations Center

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

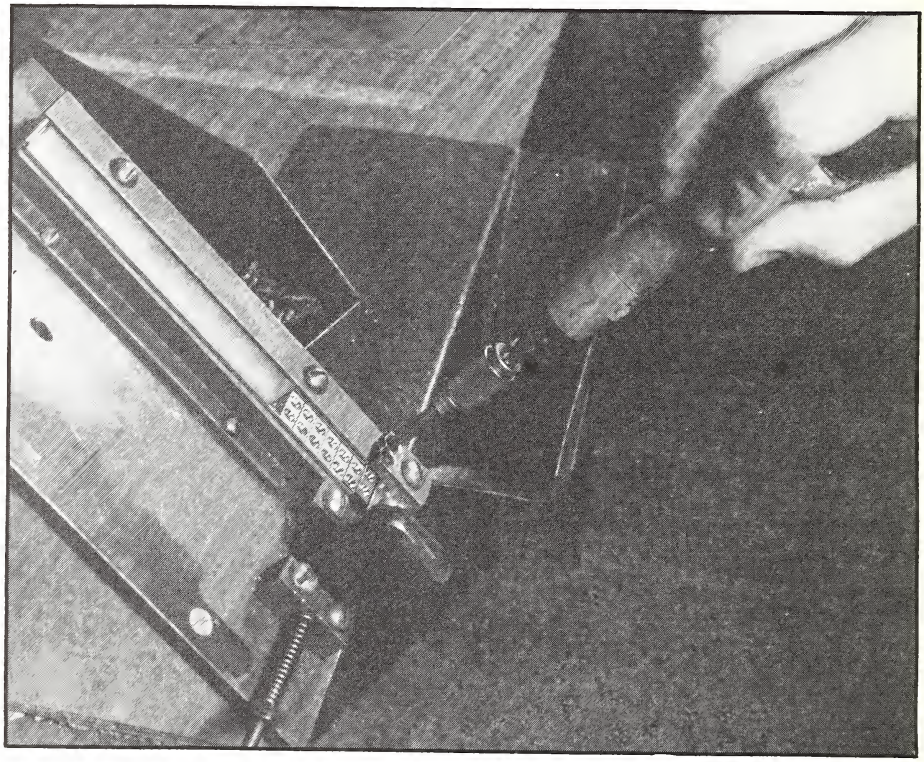
FOR SALE

May be made at a minimal cost.

HOW IT WORKS

The wooden bag stand holds heavy bags of materials such as cement, lime or salt. The bags that are placed on the stand are moved around by a forked dolly that slides under the stand. To make the stand, boards of approximate size are placed in position in the jig to obtain the exact finished size and placement. The boards are then stapled into place.

(Information based on personal interview.)



Photograph courtesy of Albert E. Swarts, P.E.

A JIG FOR DRIVING SET SCREWS

DEVELOPER

Albert E. Swarts, P.E.
Richard L. Biddy, Dir.
Vocational Industrial Center - (Houston)
Donald R. Smith, PH.D.
Texas A & M University - (College Station)

CONTACT PERSON

Albert E. Swarts, P.E.
Vocational Industrial Ctr.
Institute for Rehabilitation and Research
1809 Main Street
Houston, TX 77002
(713) 797-1440

WHERE IT IS USED

Assembly
Benchwork

PROBLEM(S) IT OVERCOMES

limited grasp; poor hand-eye coordination; limited dexterity

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

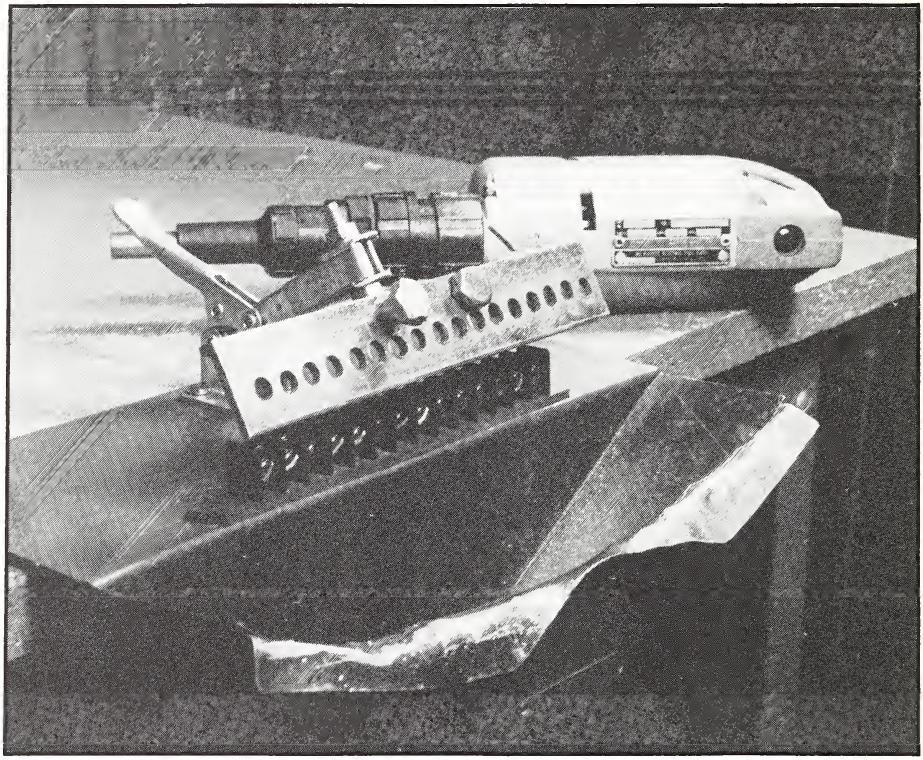
FOR SALE

May be made at a minimal cost.

HOW IT WORKS

The free-standing jig is designed to hold 25 blocks in a clip-type chute utilizing gravity feed. It is mounted at a 45 degree angle to the work table. As each block slides down the chute, a spring-loaded feed mechanism positions the block under a locating plate. The locating plate has 2 fixed location tool guide holes allowing for the accurate placement of the 2 screws. The user simply drops the 2 screws into the locator holes and sets the screws using either a power screwdriver or a push-type screwdriver. When finished locating and placing the 2 screws, the springloader ejector mechanism removes the completed subassembly into a parts bin and locates the next block.

(Information based on Examples of Jig and Fixture Design as Applied to the Severely Disabled Functioning in a Sheltered Workshop, Biddy, Smith and Swarts.)



Photograph courtesy of Albert
E. Swarts, P.E.

A JIG FOR REMOVING SCREWS FROM TERMINAL BLOCKS

DEVELOPER

Albert E. Swarts, P.E.
Richard L. Biddy, Dir.
Vocational Industrial Center - (Houston)
Donald R. Smith, PH.D.
Texas A & M University - (College Station)

CONTACT PERSON

Albert E. Swarts, P.E.
Vocational Industrial Ctr.
Institute for Rehabilitation and Research
2809 Main Street
Houston, TX 77002
(713) 797-1440

WHERE IT IS USED

Assembly
Benchwork

PROBLEM(S) IT OVERCOMES

grasping coordination problems; limited use of hands

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

May be made at a minimal cost.

HOW IT WORKS

The jig is specifically designed to remove #8 and #6 screws from electrical terminal blocks. It has holes drilled in it according to the spacing of the screws and centered directly over each screw. Seventeen holes are drilled in the jig as this accommodates the largest size terminal block. The holes are sized to allow for different types of screwdrivers. Two 3/8" bolts are used as locating pins. The jig is attached to a standard toggle clamp to allow for a firm work base. The jig is located over the hopper of a drop chute such that the removed screws will fall directly into the tote pan immediately below. Power screwdrivers can be used with very good results, but hand screwdrivers can be used equally well.

(Information based on Examples of Jig and Fixture Design as Applied to the Severely Disabled Functioning in a Sheltered Workshop, Biddy, Smith and Swarts.)

JIG TO HOLD WOOD

DEVELOPER

John Wenstadt
Northern Wisconsin Center
for the Developmentally
Disabled
Box 340
Chippewa Falls, WI 54729
(715) 723-5542

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Benchwork

PROBLEM(S) IT OVERCOMES

limited control of arm and hand movement

FIELD TESTED

yes

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

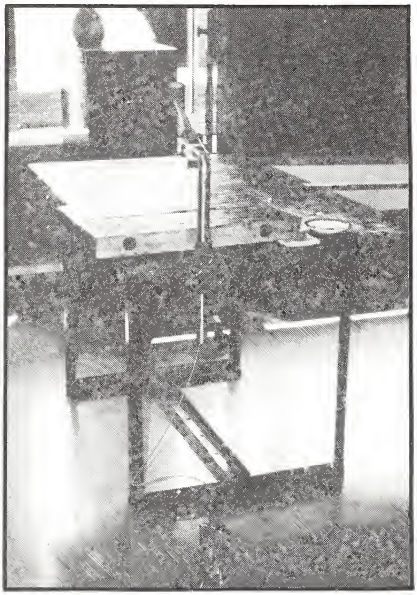
FOR SALE

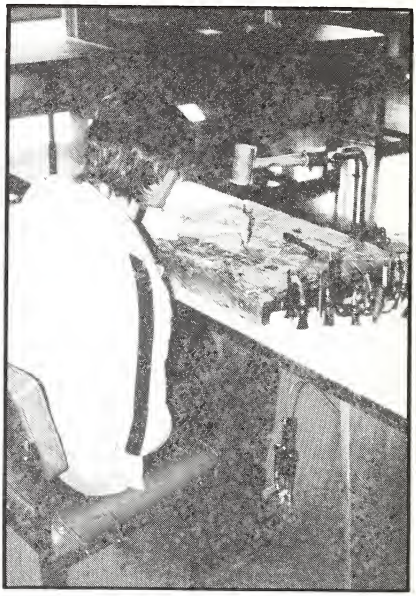
May be made at a minimal cost.

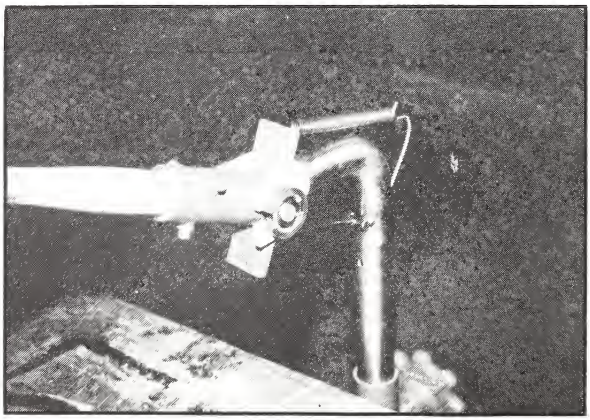
HOW IT WORKS

A dowel is inserted through one end of a piece of wood. The jig holds the wood in place making the placement of the dowel easier.

(Information based on personal interview.)







Photographs courtesy of
David F. Law, Jr.

MALLET, FOOT OPERATED

DEVELOPER

David F. Law, Jr.
Woodrow Wilson Rehab. Ctr.
Rehab. Engineering Dept.
Fishersville, VA 22939
(703) 885-9724

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Benchwork

PROBLEM(S) IT OVERCOMES

the need for two hands to use leather punches and stamps effectively

FIELD TESTED

yes

Woodrow Wilson Rehabilitation Center and Individual's Leather Shop

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

no

FOR SALE

no

HOW IT WORKS

For use by hemiplegic individuals; utilizes foot depression of a pedal to swing mallet or hammer.

(Information provided by David F. Law, Jr.)

Photograph courtesy of Albert
E. Swarts, P.E.

MODIFICATIONS TO A STANDARD PAPER CUTTER

DEVELOPER
Albert E. Swarts, P.E.
Richard L. Biddy, Dir.
Vocational Industrial Center - (Houston)
Donald R. Smith, Ph.D.
Texas A & M University - (College Station)

CONTACT PERSON
Albert E. Swarts, P.E.
Vocational Industrial Ctr.
Institute for Rehabilitation and Research
2809 Main Street
Houston, TX 77002
(713) 797-1440

WHERE IT IS USED
Assembly
Benchwork

PROBLEM(S) IT OVERCOMES
lower extremity weakness; strength limitations

FIELD TESTED
information not available

REGULATORY APPROVAL
not applicable

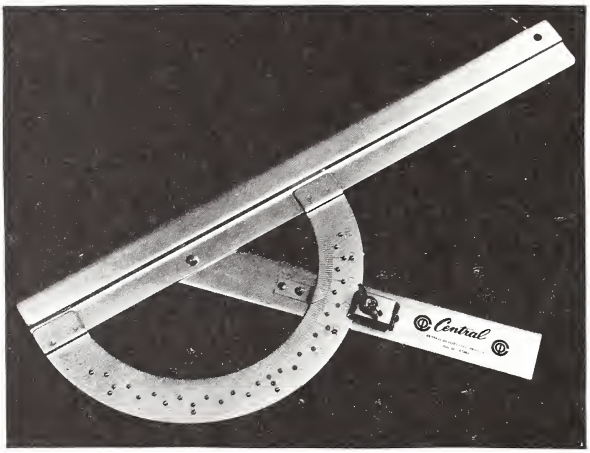
WARRANTY PROVIDED
not applicable

FOR SALE
May be made at a minimal cost.

HOW IT WORKS

The alignment requirement of a standard paper cutter was simplified to cut rolls of plastic to specific lengths. A rack was built to hold rolls of plastic and permit them to unroll in line with a lower guide on the paper cutter. An adjustable stop clamped to the bed of the paper cutter stops the plastic at the right length. The stop and guide must be tight on the bed of the paper cutter to prevent the plastic from sliding under it. The best cuts are made when the plastic is placed as near as possible to the lower end (away from the blade hinge) of the paper cutter. To maintain a piece count, a counter can be placed so that it is activated when the blade is raised.

(Information based on Examples of Jig and Fixture Design as Applied to the Severely Disabled Functioning in a Sheltered Workshop, Biddy, Smith and Swarts.)



Photograph courtesy of
American Foundation for
the Blind

PROTRACTOR AND SAW GUIDE

DEVELOPER

CONTACT PERSON

Alex H. Townsend
American Foundation for the Blind
15 West 16th Street
New York, NY 10011
(212) 620-2169

WHERE IT IS USED

Benchwork
Construction

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

yes

by panels of blind and visually impaired persons

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

American Foundation for the Blind
15 West 16th Street
New York, NY 10011

$17.00

HOW IT WORKS

This device is particularly useful with an electric saw. Rivets have been placed to serve as single raised dots at each 5°, with double raised dots at 30° and 60°, and three raised dots at 0° which is at 90° to the base. The lines on the scale are slightly depressed. It is made of cadmium plated steel and weighs 1½ pounds.

(Information based on American Foundation for the Blind literature.)

SANDING BLOCK

Photograph not available

SANDING BLOCK

DEVELOPER

Richard LeBlanc
Frederick J. Gaenslen School
1301 E. Auer Avenue
Milwaukee, WI 53212
(414) 264-2535

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Sanding

PROBLEM(S) IT OVERCOMES

gripping; hand control

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

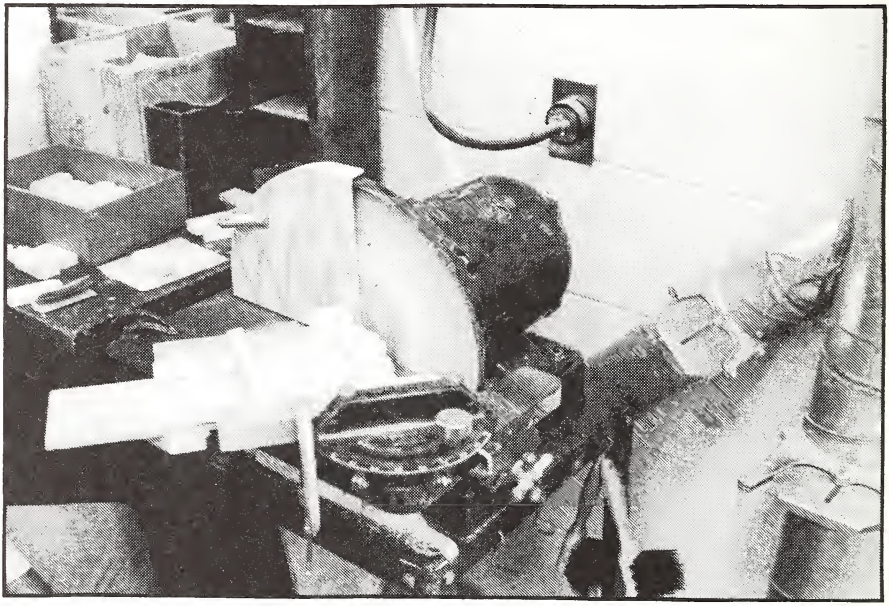
FOR SALE

May be made at a minimal cost.

HOW IT WORKS

A dowel glued to the sanding block is inserted into a hole drilled in the wooden handle and secured with glue. The handle is large enough to be used by a person with gross motor coordination.

(Information provided by Miriam Rosenburg and Richard LeBlanc, Gaenslen School.)



SANDING JIG

DEVELOPER

John Wenstadt
Northern Wisconsin Center
for the Developmentally
Disabled
Box 340
Chippewa Falls, WI 54729
(715) 723-5542

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Benchwork

PROBLEM(S) IT OVERCOMES

limited control of hand and arm movement

FIELD TESTED

yes

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

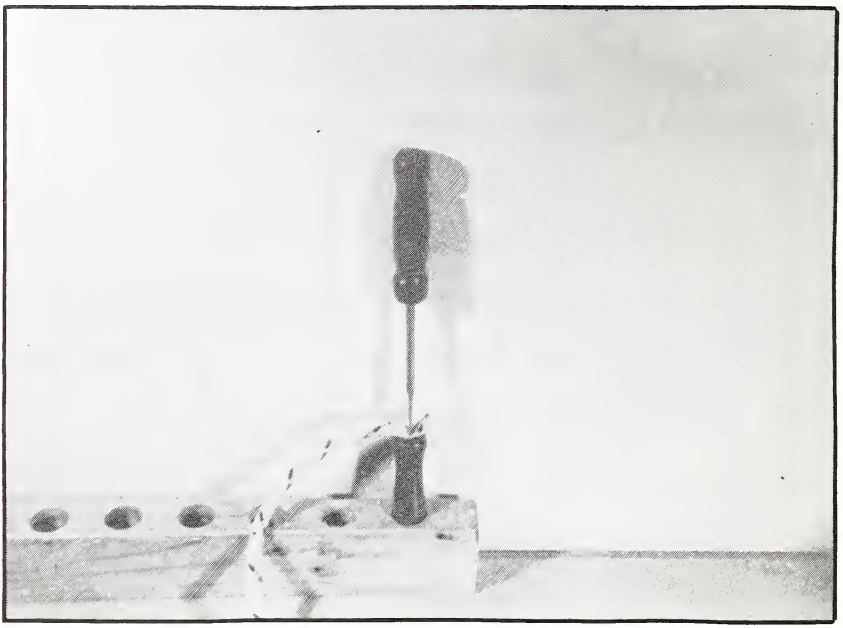
FOR SALE

May be made at a minimal cost.

HOW IT WORKS

The jig provides an area, wide and deep enough for the piece of wood it is to sand. It is secured to the table so the angle to be sanded is the angle that it would fit tight against.

(Information based on personal interview.)



Photograph courtesy of California Department of Rehabilitation

SIMPLE HAND TOOLS IMPROVE OPERATION

DEVELOPER

Charles Eckles
Independent Contract
Consultant
(213) 360-4180

CONTACT PERSON

California Department of
Rehabilitation
830 "K" Street Mall
Sacramento, CA 95814
(916) 322-8500

WHERE IT IS USED

Benchwork

PROBLEM(S) IT OVERCOMES

See: HOW IT WORKS

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

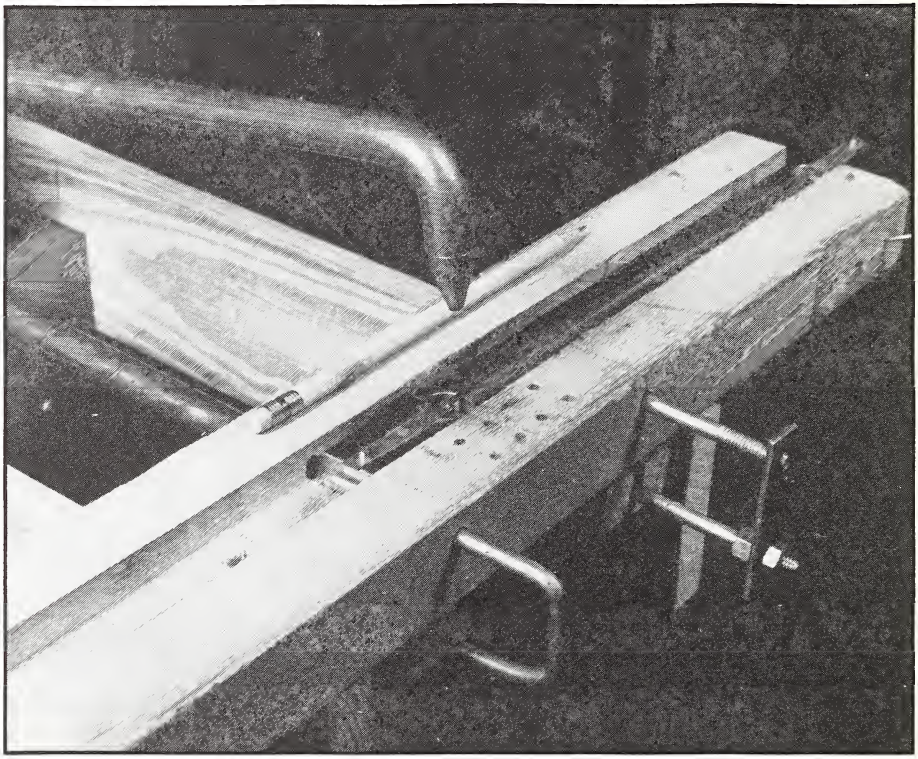
May be made at a minimal cost.

HOW IT WORKS

This is a simple multiple-part positioning jig and hand tool to help solve the frustrating and messy job of assembling jump ropes. Instead of the regular process of assembling jump ropes by applying glue to the end of the rope and forcing it into the handle by hand, the process is changed by pouring a small amount of glue into the jig-positioned handles and then pushing the rope into the hole with a tamper made from a conventional screwdriver.

(Information based on A Handbook of Workshop Production Aids, California Department of Rehabilitation.)

A SPOTWELDER HOLDING FIXTURE



Photograph courtesy of Albert
E. Swarts

A SPOTWELDER HOLDING FIXTURE

DEVELOPER

Albert E. Swarts, P.E.
Richard L. Biddy, Dir.
Vocational Industrial Center - (Houston)
Donald R. Smith, Ph.D.
Texas A & M University - (College Station)

CONTACT PERSON

Albert E. Swarts, P.E.
Vocational Industrial Ctr.
Institute for Rehabilitation and Research
2809 Main Street
Houston, TX 77002
(713) 797-1440

WHERE IT IS USED

Assembly
Benchwork

PROBLEM(S) IT OVERCOMES

dexterity limitations

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

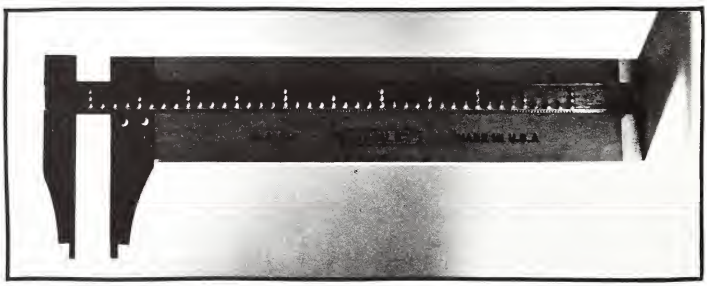
FOR SALE

May be made at a minimal cost.

HOW IT WORKS

The fixture is designed for spotwelding brass connectors to both ends of a Nichrome ribbon, requiring accurate placement of the welding point. Holding fixtures, to insure proper length, are supplied but do not effect good placement of the weld. To remedy this, a frame was built around the welding tongs with a channel to center the fixture along the line of the welder tip. A stop is used to center the weld point on the other axis. This locates the fixture on 3 sides. To reduce handling and dexterity requirements, the stop is on a slide and a second one is on the other side. This permits the operator to slide the fixture through the channel to the other end instead of lifting it out and turning it around to weld the second end.

(Information based on Examples of Jig and Fixture Design as Applied to the Severely Disabled Functioning in a Sheltered Workshop, Biddy, Smith and Swarts.)



Photograph courtesy of
American Foundation for
the Blind

STANLEY CALIPER RULE

DEVELOPER

CONTACT PERSON

Alex H. Townsend
American Foundation for the Blind
15 West 16th Street
New York, NY 10011
(212) 620-2169

WHERE IT IS USED

Benchwork
Construction

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

yes

by panels of blind and visually impaired persons

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

American Foundation for the Blind
15 West 16th Street
New York, NY 10011

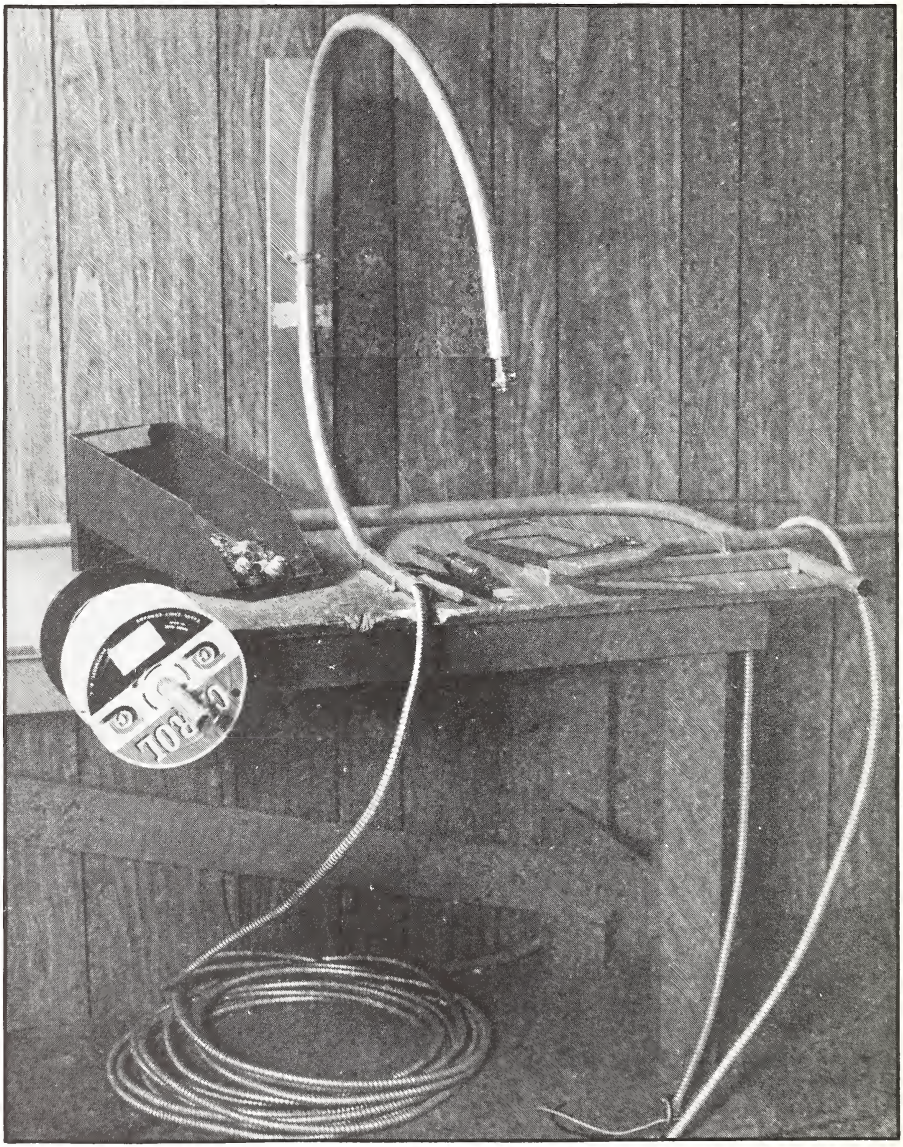
$19.00

HOW IT WORKS

The sliding jaw has a raised scale graduated in 1/8" marks indicated by a single raised dot. For quick reading, the ½" mark has double raised dots and the 1" mark has three raised dots for inside and outside measurement. The stationary jaw has double raised dots on the face to indicate inside and outside measurements.

(Information based on American Foundation for the Blind literature.)

A TABLE-FIXTURE FOR THE ASSEMBLY OF ELECTRICAL CONDUIT WIRING



Photograph courtesy of Albert E. Swarts, P.E.

A TABLE FIXTURE FOR THE ASSEMBLY OF ELECTRICAL CONDUIT WIRING

DEVELOPER

Albert E. Swarts, P.E.
Richard L. Biddy, Dir.
Vocational Industrial Center - (Houston)
Donald R. Smith, Ph.D.
Texas A & M University - (College Station)

CONTACT PERSON

Albert E. Swarts, P.E.
Vocational Industrial Ctr.
Institute for Rehabilitation and Research
2809 Main Street
Houston, TX 77002
(713) 797-1440

WHERE IT IS USED

Assembly
Benchwork

PROBLEM(S) IT OVERCOMES

overall bulkiness of the assembly operation

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

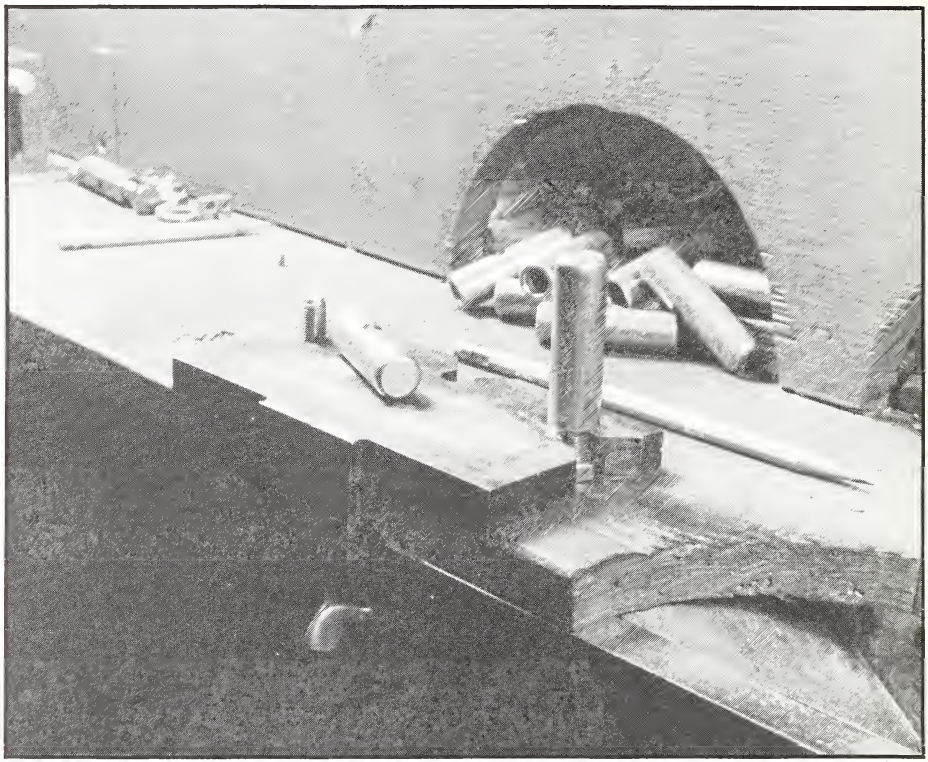
FOR SALE

May be made at a minimal cost.

HOW IT WORKS

The worktable accommodates two users. The main features of the table fixture are 2 flexible conduit holding tubes constructed out of 3/4' rigid aluminum conduit bent in a circle. Users insert the flexible conduit into the bottom part of the rigid conduit and force it through until approximately 2 feet of flexible conduit comes out of the top of the tube. The core wiring (2 wires stored in spools at the middle of the worktable) is inserted into the flexible conduit and forced through. With the assistance of "fishtape", the core wiring is pulled through the flexible conduit from the top. The advantage of this worktable design is that less space is required and the work is conveniently located so that users can function in a comfortable manner.

(Information based on Examples of Jig and Fixture Design as Applied to the Severely Disabled Functioning in a Sheltered Workshop, Biddy, Smith and Swarts.)



Photograph courtesy of Albert
E. Swarts, P.E.

WORKSTATION AND ASSOCIATED FIXTURES FOR THE ASSEMBLY OF VALVE HANDLES

DEVELOPER

Albert E. Swarts, P.E.
Richard L. Biddy, Dir.
Vocational Industrial Center - (Houston)
Donald R. Smith, PH.D.
Texas A & M University - (College Station)

CONTACT PERSON

Albert E. Swarts, P.E.
Vocational Industrial Ctr.
Institute for Rehabilitation and Research
2809 Main Street
Houston, TX 77002
(713) 797-1440

WHERE IT IS USED

Assembly
Benchwork

PROBLEM(S) IT OVERCOMES

upper extremity weakness; use of only one hand

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

May be made at a minimal cost.

HOW IT WORKS

The two-person worktable is designed to centralize the work into a compact and manageable work area. Two parts bins are incorporated into the station with fixtures to assist in the assembly. Two metal drop chutes with micro-switch counters are installed at 2 convenient locations to facilitate in the discharging and counting of the finished parts.

For users possessing upper extremity limitations, or who have use of only one hand, a fixture has been designed to facilitate assembly. The fixture may be clamped to the worktable top at either end of the table next to the discharge slot of the drop chutes. Slots are milled into the base of the fixture at 2 sides to hold the head of the bolt and prevent it from twisting when the sleeve is screwed on. With proper training, users are able to attach the sleeve to the bolt and with a twist and inward rotation, discharge the completed assembly into the drop chute.

(Information based on Examples of Jig and Fixture Design as Applied to the Severely Disabled Functioning in a Sheltered Workshop, Biddy, Smith and Swarts.)

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Photograph courtesy of
American Communication
Corporation

AM-COM I (TTY)

DEVELOPER

American Communication Corporation
180 Roberts Street
East Hartford, CT 06108
(203) 289-3491
(Voice or TTY)

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Communication

PROBLEM(S) IT OVERCOMES

inability of someone who is deaf to communicate by phone

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

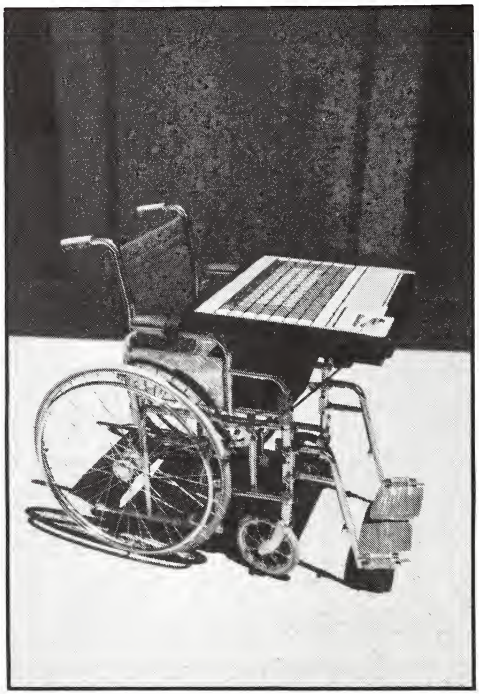
American Communication Corporation
180 Roberts Street
East Hartford, CT 06108

AM-COM 1	$495
Shipping	$ 10
Emergency message feature	$ 65
Carrying case	$ 25

HOW IT WORKS

AM-COM 1 is battery operated and will function without being plugged into an electrical outlet. Now you can call from a pay phone, at work, or even while visiting. AM-COM 1 is compatible with most automatic phone answering equipment. In addition to AM-COM 1's 900 character built-in memory storage system, unlimited memory is possible with the use of a supplementary tape recorder. In the event of an emergency and help is needed, dial the emergency number and depress the Emergency Key and 1 key for police, 2 key for fire or 3 key for ambulance. AM-COM 1 will automatically send a TTY message for help repeatedly with your name and address while you handle the emergency.

(Information based on company literature.)



Photograph courtesy of the
Trace Center

DEVELOPER

Trace Center
University of Wisconsin
314 Waisman Center
1500 Highland Avenue
Madison, WI 53706

CONTACT PERSON

Michael Reynolds
Telesensory Systems
3408 Hillview
Palo Alto, CA 94304
(415) 493-2626

WHERE IT IS USED

Communication
Education

PROBLEM(S) IT OVERCOMES

difficulty in speaking or writing due to severe motoric impairment

FIELD TESTED

yes

38 individuals and sites in a U.S. Office of Education supported evaluation study

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

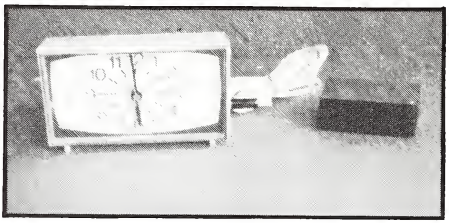
Telesensory Systems, Inc.
3408 Hillview Avenue
Palo Alto, CA 94304

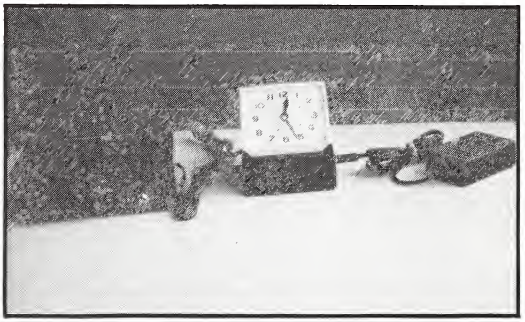
$5,975

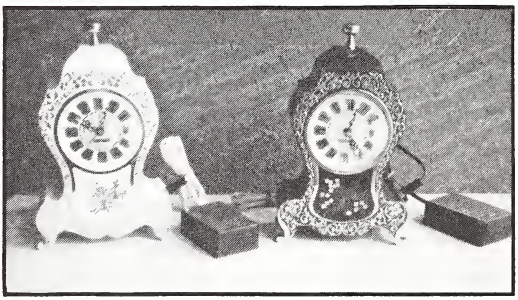
HOW IT WORKS

The Autocom is a portable electronic communication aid built into a wheelchair laptray. A magnet mounted on a handpiece or headstick is used to point to vocabulary items on the board's grid. Autocom users can communicate without assistance. A message can be produced on the 32-character LED display and or printed onto a 3-inch wide paper roll. By means of interfacing equipment and or a connecting cable the user can also print messages onto certain electric typewriters, teletypewriters, TV monitors, modified television sets, CRT displays, other Autocoms or Autocompatible aids, and to some standard computer peripheral equipment. Messages can be displayed on an optional Auxiliary Message Viewer (AMV) that faces toward the person(s) to whom the message is directed. The 32-character LED display of the AMV allows comfortable, spontaneous conversation. The battery-powered Autocom will operate for 8 hours before needing a recharge. A single vocabulary selection can activate letters, words, phrases, complete sentences or whole paragraphs. By using up to 59 "levels" of electronic memory, the Autocom user can construct and store several thousand vocabulary items. An adjustable delay activation allows the user to slide the handpiece over the board items without selecting unwanted vocabulary items.

(Information based on company literature.)







Photographs courtesy of Alerton Systems Enterprises

AWAKENING DEVICE FOR HEARING IMPAIRED

DEVELOPER

Alerton Systems Enterprises
1735 N. Morningside St.
Orange, CA 92667
(714) 637-4683

CONTACT PERSON

Harry M. Comer
Alerton Systems Enterprises
1735 N. Morningside St.
Orange, CA 92667
(714) 637-4683

WHERE IT IS USED

Communication
Home Economics
Homemaking

PROBLEM(S) IT OVERCOMES

inability to hear a convential alarm clock

FIELD TESTED

yes

United States

REGULATORY APPROVAL

yes

WARRANTY PROVIDED

yes

FOR SALE

Alerton Systems Enterprises
1735 N. Morningside St.
Orange, CA 92667

$34.00 to $42.50

HOW IT WORKS

The clock is set for awakening time. A module (box) connected to an electronic circuit in the clock, is triggered to pulsate for awakening the person using it. It (module) is placed under the pillow for use. Travelling salespersons and persons with difficulty in hearing ordinary clock alarms find this device of special use.

(Information based on Alerton Systems Enterprises literature.)

Photograph courtesy of
Telephone Pioneers of America,
Oregon Chapter #31

BEJED PIONEER LIGHT PROBE

DEVELOPER

John Dannenmann
Bill Johnson
Pacific Northwest Bell Telephone

CONTACT PERSON

Oregon Chapter #31
Telephone Pioneers of America
421 S.W. Oak St., Room 114
Portland, OR 97204
(503) 242-8706

WHERE IT IS USED

Indicate the brightness of a light source
Operate key telephones or switchboards

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

yes

evaluated by American Federation for the Blind and Bell Telephone Laboratories

REGULATORY APPROVAL

no

WARRANTY PROVIDED

yes

FOR SALE

Light Probe
Oregon Chapter #31
Telephone Pioneers of America
421 S.W. Oak Street, Room 114
Portland, OR 97204

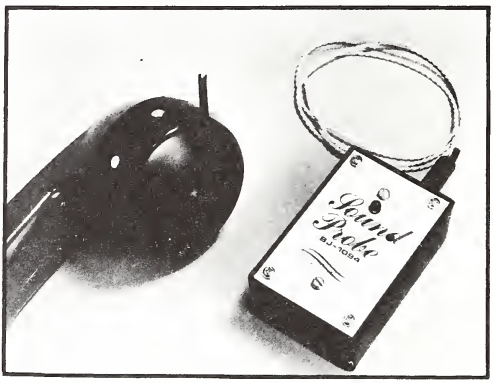
$20.00

HOW IT WORKS

The amplifier model is a portable plastic box 3½"x2¾"x1¼". The unit is a small speaker-amplifier with a thumb wheel on-off volume switch. At the top is a jack for the 2' cord at the end of which is the sensor. The user puts the sensor near a light source and a tone is emitted from the speaker corresponding to the intensity of the light. Telephone lights are indicated as follows: incoming calls is a slow interrupted tone; hold is a fast interrupted tone; line in use is a steady tone and a clear line produces no tone.

Other uses have been in finding desired elevator floors, following hallways with overhead lights and assuring lights are off by an x-ray developing technician. It operates with a 9 volt battery, A.C. adapters available at extra cost.

(Information based on Oregon Chapter #31, Telephone Pioneers of America literature.)



Photograph courtesy of
Telephone Pioneers of
America, Oregon Chapter #31

BEJED PIONEER SOUND PROBE

DEVELOPER

John Dannenmann
Bill Johnson
Pacific Northwest Bell
Telephone

CONTACT PERSON

Oregon Chapter #31
Telephone Pioneers of
America
421 S.W. Oak St., Rm. 114
Portland, OR 97204
(503) 242-8706

WHERE IT IS USED

Speaking on the telephone

PROBLEM(S) IT OVERCOMES

hearing impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

no

WARRANTY PROVIDED

yes

FOR SALE

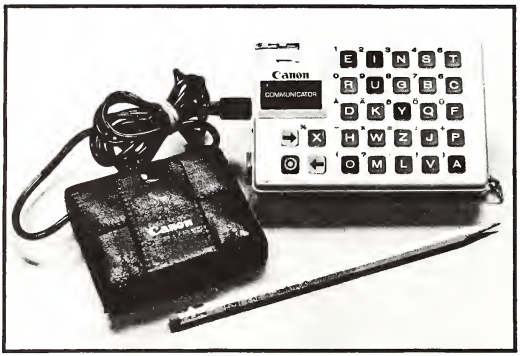
Sound Probe
Oregon Chapter #31
Telephone Pioneers of America
421 S.W. Oak Street, Room 107
Portland, OR 97204

$25.00

HOW IT WORKS

This is a portable unit which converts sound into light flashes. The unit is turned on when the user plugs the pick-up microphone, (which has been attached to the telephone receiver), into the jack of the Sound Probe. The lamp on the unit varies in brightness with the loudness of the sound. To communicate with the user, who must be able to speak, the speaker can respond yes or no-no to the user's questions. There will be a single flash for the yes response and two flashes for the no-no response. Tapping on the telephone receiver, once for yes, twice for no-no, will also produce the light flashes.

(Information based on Oregon Chapter #31, Telephone Pioneers of America literature.)



Photograph courtesy of
Telesensory Systems Inc.

CANON COMMUNICATOR

DEVELOPER

Canon

CONTACT PERSON

Michael Reynolds, Non-vocal Communications Manager
Telesensory Systems, Inc.
3408 Hillview Avenue
Palo Alto, CA 94304
(415) 493-2626

WHERE IT IS USED

Communication

PROBLEM(S) IT OVERCOMES

inability to speak; limited movement

FIELD TESTED

information not available

REGULATORY APPROVAL

information not abailable

WARRANTY PROVIDED

yes

FOR SALE

Telesensory Systems, Inc.
3408 Hillview Avenue
Palo Alto, CA 94304

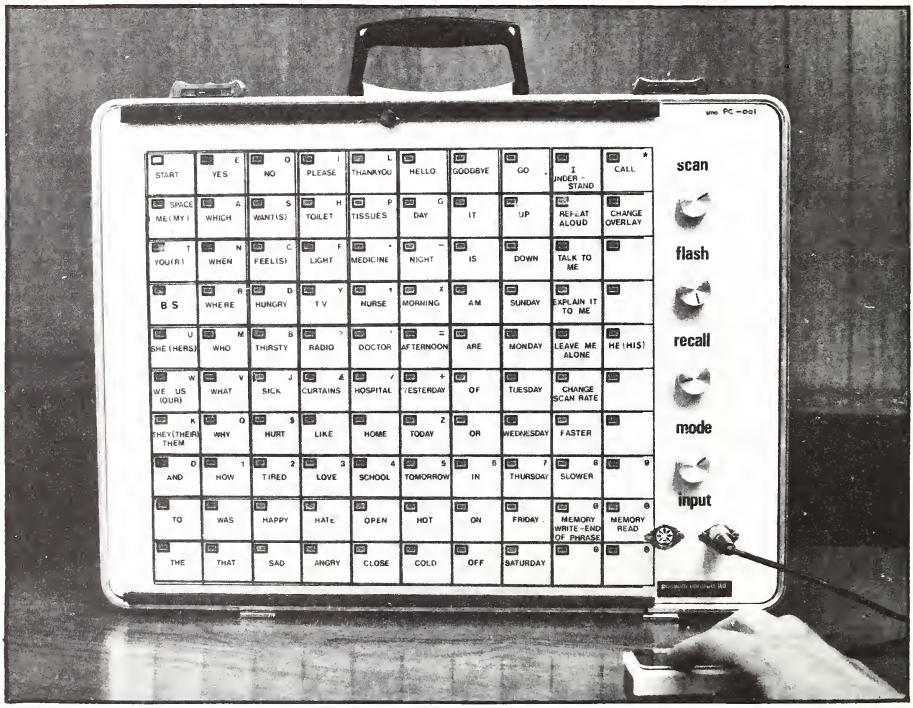
distributed by TSI in North America only

$599.00

HOW IT WORKS

The Canon Communicator allows communication by entering messages on a keyboard, letter by letter. The system then prints the messages on a paper tape. The communicator is pocket-sized, powered by a rechargeable battery pack, and can be attached to the wrist, leg, or wheelchair. Key overlays prevent inadvertent entries by those with limited fine motor control.

(Information reprinted with permission from Telesensory Systems, Inc. literature.)



Photograph courtesy of
Possum Controls, Inc.

DEVELOPER

Possum Controls, Inc.
11 Fairacres Industrial Estate
Windsor Berkshire
England

CONTACT PERSON

Ann F. Gurr
Possum, Inc.
P.O. Box 451
Midwood Station
Brooklyn, NY 11230
(212) 243-1658

WHERE IT IS USED

Communicating

PROBLEM(S) IT OVERCOMES

no oral communication

FIELD TESTED

yes

Britain

REGULATORY APPROVAL

FDA

WARRANTY PROVIDED

yes

FOR SALE

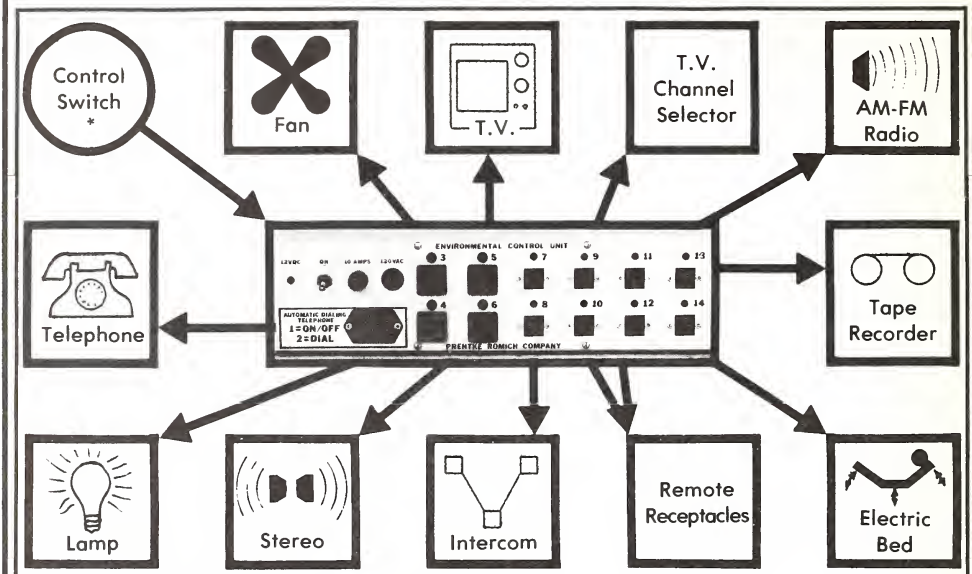
Possum, Inc.
P.O. Box 451
Midwood Station
Brooklyn, NY 11230

$990.00 plus shipping

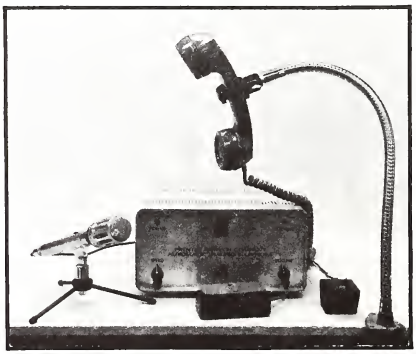
HOW IT WORKS

The Communicator, 483mm x 356mm has a panel consisting of 100 cells in a 10x10 matrix. Each cell is labelled with a word or a phrase. Overlay sheets are provided on general themes including an alphabet and symbol sheet used to spell out words. Different sheets can be created to meet the user's need. There are three operating modes, mode 1 uses a single input switch. To use the first mode, the mode switch is set to mode 1, the input switch is activated and released causing the lamp in the start position to illuminate indicating the device has been turned on. (See Possum™ Input Controls (p. 312) for types of operating switches.) When the input is activated and held the lamp will scan the panel horizontally at a preset rate. The input is released at the selected row then the lamp scans the vertical row until the input is activated again at the selected cell. After the input is released, the lamp flashes for a preset time then returns to the start position. A new selection can now be made. The memory can store up to forty cell messages which remain in memory with the unit turned off. One of the unit's controls is "attendant call". To use this control the cell marked call is selected causing the unit to emit a low tone pulsed for fifteen seconds. This unit uses charged batteries.

(Information based on manual and literature for Possum Communication.)



Environmental Control Unit



Automatic Dialing Telephone

Photographs courtesy of
Prentke Romich Company

DEVELOPER

Various Developers

CONTACT PERSON

Barry Romich
Prentke Romich Co.
RD 2, Box 191
Shreve, OH 44676
(216) 567-2906

WHERE IT IS USED

Communicating
Operate electrical items

PROBLEM(S) IT OVERCOMES

no oral communication; nearly total paralysis

FIELD TESTED

yes

REGULATORY APPROVAL

yes

Automatic Dialing Telephone FCC registered; some items VA approved

WARRANTY PROVIDED

yes

FOR SALE

Prentke Romich Company
RD 2, Box 191
Shreve, OH 44676

HOW IT WORKS

Prentke Romich Company develops, manufactures and markets electronic aids for the severely handicapped serving two general population groups, people who are non-verbal and people who are nearly totally paralyzed. The devices make use of the individual's capabilities and provide functions to enhance communication and daily living tasks relating to educational, vocational and recreational pursuits.

Electronic communication aids permit non-verbal persons to express themselves. These devices may use pictures, symbols, letters, words, or sentences. They may simply light a lamp or they may print characters on a paper or video display. Many of the aids can be used as data entry terminals for connection to a computer.

Environmental control systems permit persons who are nearly totally paralyzed to operate various electrical devices in their surroundings. This can include answering and dialing the telephone, controlling television, radio, intercom, etc. and operating specially designed or adapted equipment.

(Information provided by Barry Romich, Prentke Romich Co.)

LAP TRAY, DETACHABLE, WHICH CONTAINS AN ELECTRONIC TALKING COMMUNICATOR

Photographs courtesy of David F. Law, Jr.

LAP TRAY, DETACHABLE, WHICH CONTAINS AN ELECTRONIC TALKING COMMUNICATOR

DEVELOPER

Woodrow Wilson Rehab. Ctr.
Rehab. Engineering Dept.
Fishersville, VA 22939
(703) 885-9724

CONTACT PERSON

David F. Law, Jr.
Woodrow Wilson Rehab. Ctr.
Rehab. Engineering Dept.
Fishersville, VA 22939
(703) 885-9724

WHERE IT IS USED

Communicating

PROBLEM(S) IT OVERCOMES

inconvenience of transporting electronic communicators

FIELD TESTED

yes

Woodrow Wilson Rehabilitation Center and home

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

no

FOR SALE

no

HOW IT WORKS

A hinged vacuum-formed plastic housing was designed to clamp to the desk-type arms of a wheelchair. By lifting the lap tray, the individual immediately has access to his talking communicator, yet it is neatly concealed when not in use. The wheelchair carrying case for Handi-Voice™ communicator, (p.178), also provides a working surface for the individual.

(Information provided by David F. Law, Jr.)

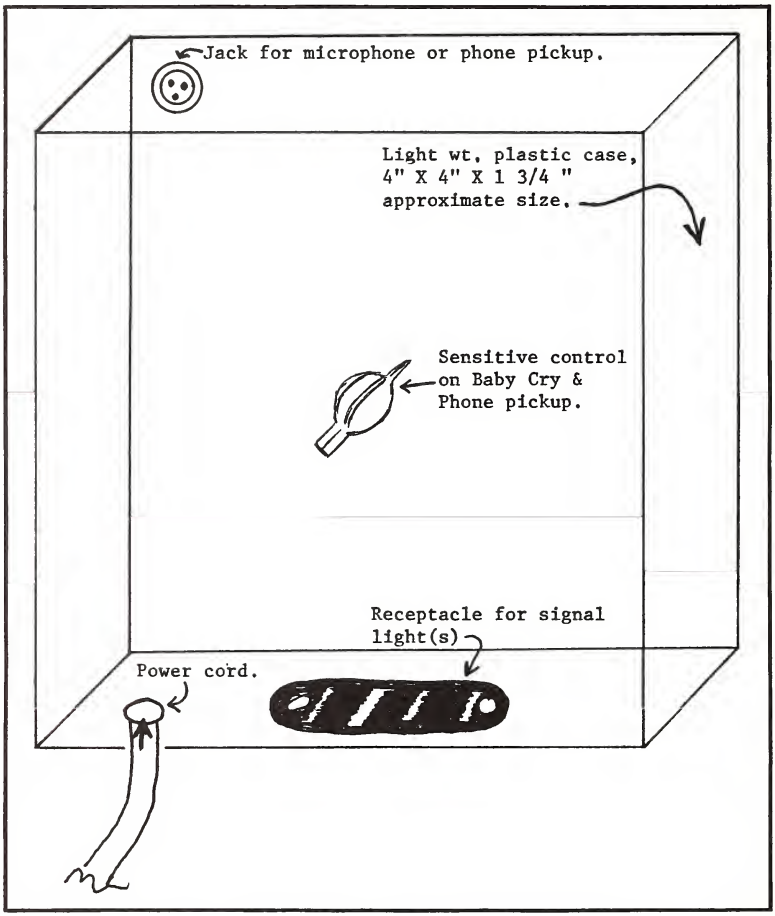


Diagram courtesy of KE
Notifier Series, redrawn
by Terri Bleck, WVSC

LIGHT SIGNAL DEVICES FOR THE HEARING IMPAIRED

DEVELOPER

Kenneth H. Dirks
2801 Berry Street
Sioux City, IA 51103
(712) 255-6642

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Communication

PROBLEM(S) IT OVERCOMES

hearing impairment

FIELD TESTED

yes

in use for several years

REGULATORY APPROVAL

HEW

WARRANTY PROVIDED

yes

FOR SALE

The KE Notifier Series
Devices for the Hearing Impaired
2801 Berry Street
Sioux City, IA 51103

HOW IT WORKS

The drawing on the opposite page is of a typical device from the KE Notifier Series. For the hearing impaired and others needing a light signaling device, there are several units to serve various needs: The Baby Cry Sound Pickup, the Telephone Magnetic Pickup, the Door Bell Pickup, the Sick Room Call, the Heat Sensor Fire Alarm, and the Snap On Phone Amplifier.

(Information provided by Kenneth H. Dirks.)

Photograph courtesy of
Toby Churchill, Ltd.

LIGHTWRITER

DEVELOPER

Toby Churchill, Ltd.
20 Panton Street
Cambridge CB2 1HP
England

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Communication

PROBLEM(S) IT OVERCOMES

difficulty in communication experienced by persons who are unable to speak

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

Toby Churchill, Ltd.
20 Panton Street
Cambridge CB2 1HP
England

HOW IT WORKS

The Lightwriter is a portable unit consisting of a keyboard and luminous display. As the keys are depressed, characters enter the right-hand end of the display, moving those previously entered to the left, in the manner of a moving newsstrip. Corrections may be made by using the Backspace or Erase keys.

The keyboard uses the familiar typewriter layout, with a full range of letters, numerals and punctuation. It consists of a key-guard over a slash-proof membrane, allowing error-free operation for users with poor muscular control.

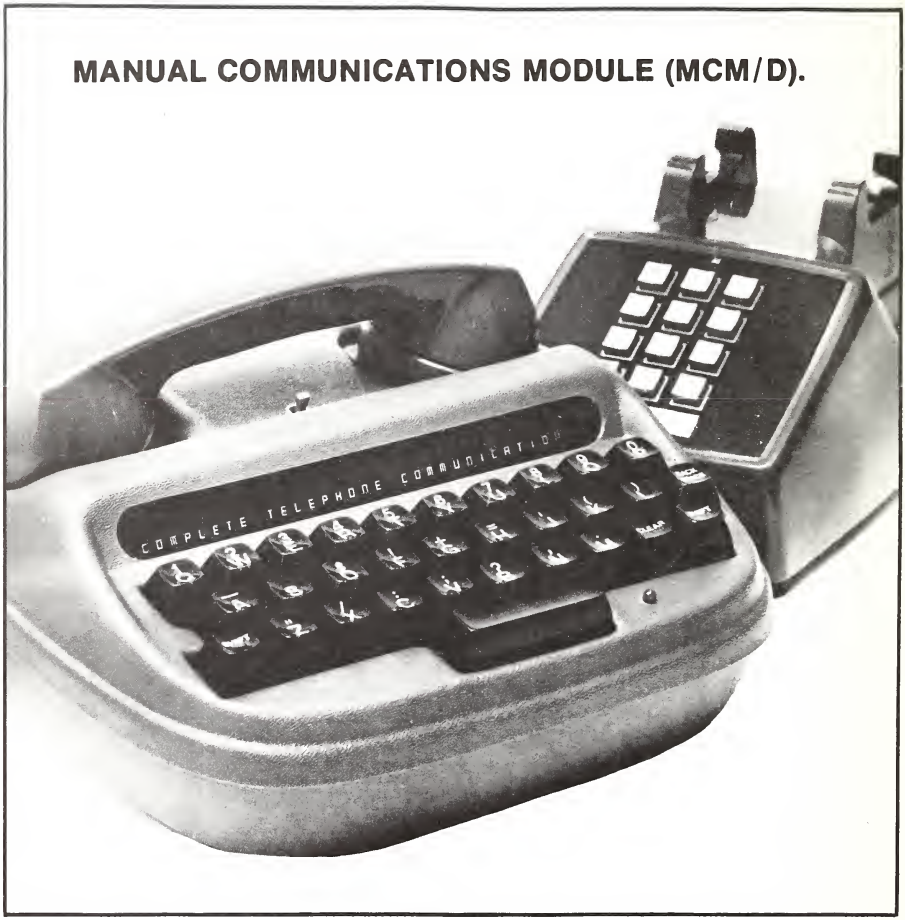
The display is removable, for placing either way around in the base unit, or standing separately on any convenient surface. It is secured by a simple latch mechanism, which can be operated by one hand. The display shows the last 32 characters entered, so that long phrases remain visible, giving ease of reading even where there are distractions.

Options include: 1) 16-character-display, character height 15 mm., 2) keyboards in French, German, Italian, Scandinavian or Spanish layouts. For those with no typing experience, there is also an alphabetic layout.

Further options are under development. These include standard typewriter-style keys, and a communications unit allowing two lightwriters to be used in conversational mode.

(Information based on company literature.)

MANUAL COMMUNICATIONS MODULE (MCM/D).



Photograph courtesy of
Wendy Eilers

MANUAL COMMUNICATIONS MODULE (MCM/D)

DEVELOPER

Micon Industries
252 Oak Street
Oakland, CA 94607
(415) 763-6033

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Communication

PROBLEM(S) IT OVERCOMES

a deaf person's inability to use a regular phone to communicate with someone else who has deaf telecommunications equipment

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

Micon Industries
252 Oak Street
Oakland, CA 94607

$640.00

HOW IT WORKS

This is a portable communications device, size, 8" x 10" x 3", weight, 3.8 lbs.; battery powered, but includes an AC Adaptor/Recharger.

The display screen offers a 32-character read-out of both sides of the conversation. The words and symbols move across the display in an uninterrupted stream.

The MCM/D is compatible with all deaf telecommunications equipment. The built-in coupler/modem accepts all U.S. and Canadian handsets including the TrimLine and Princess telephones.

A plug on the side of the MCM/D terminal permits tape recording (for playback through the MCM/D) of conversations, or the prerecording of a message that is to be sent to many persons. To do this you must have the "Audio-Connector" accessory, and any audio-grade cassette recorder.

An L.E.D. lamp is located on the Power-Bright display window. It indicates the status of your call: dial tone present, telephone ringing, line or circuits busy. The "Power On" lamp will begin blinking On and Off about one-half hour prior to the charge in the Ni-Cad battery becoming exhausted and in need of recharging. This eliminates the possibility of untimely loss of messages.

(Information based on organization literature.)

MANUAL COMMUNICATIONS MODULE/PRINTER (MCM/P)

Photograph courtesy of
Wendy Eilers

MANUAL COMMUNICATIONS MODULE/PRINTER (MCM/P)

DEVELOPER

Micon Industries
252 Oak Street
Oakland, CA 94607
(415) 763-6033

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Communication

PROBLEM(S) IT OVERCOMES

a deaf person's inability to use regular phones to talk with other users of deaf telecommunication devices

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

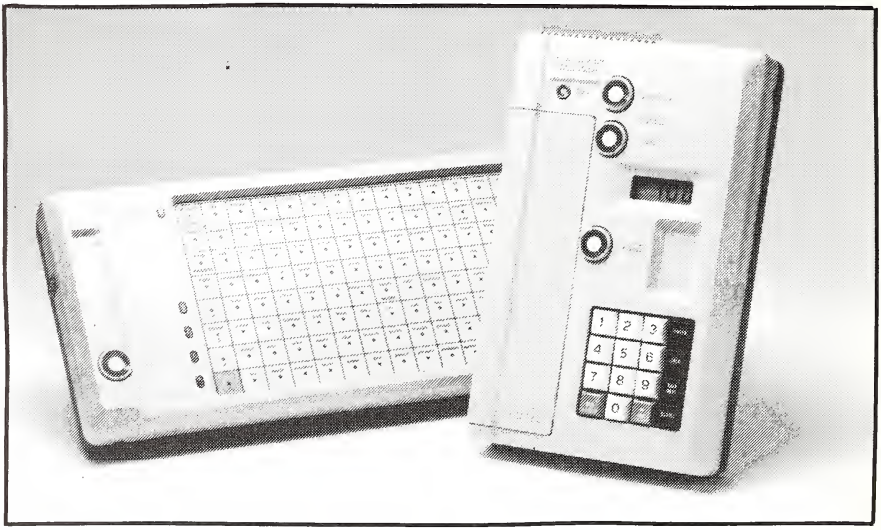
Micon Industries
252 Oak Street
Oakland, CA 94607

$695.00 - $795.00

HOW IT WORKS

The MCM/P Communications System represents the third generation product development of the Micon Communications Modules for the Deaf. It answers the need for full print-out capability without adding excessive size and weight to the module. It is available as either a battery-powered portable unit or a line-connected stationary module. It includes a standard typewriter keyboard, status signaling for dial tone, phone ringing and busy signaling, A.L.C. (Automatic Line Control) for carriage return and line feed to TTYs and fail-safe status lights. The portable version is powered by lightweight rechargeable Ni-Cad batteries and features a universal coupler that will accept all U.S. and Canadian handsets. The stationary version features an automatic answering capability that will send a 56 character message when owner is unable to answer the phone. But, most important is the continuous roll print-out capability of the MCM/P, which will accommodate a 60 WPM input on a ribbonless carriage. Each continuous roll of 5½" thermal paper can hold over 94,000 words. It provides a 60 WPM, 48 character-per-line printout capacity.

(Information based on company literature.)



Photograph courtesy of Votrax

PHONIC MIRROR® HANDIVOICE™

DEVELOPER

Votrax Division
Federal Screw Works
500 Stephenson Hwy.
Troy, MI 48084
(313) 588-2050

CONTACT PERSON

Diane DeHaven
Votrax Division
Federal Screw Works
500 Stephenson Hwy.
Troy, MI 48084
(313) 588-2050

WHERE IT IS USED

Communicating

PROBLEM(S) IT OVERCOMES

no oral communication; used as a diagnostic educational or theraputic aid

FIELD TESTED

yes

throughout the U.S.

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

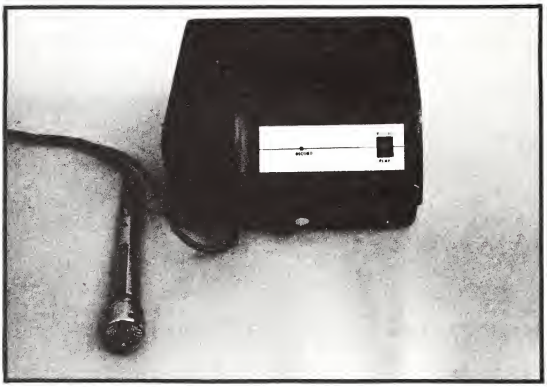
HC Electronics
250 Camino Alto
Mill Valley, CA 94941

$2,195.00

HOW IT WORKS

HC-110 and HC-120 are hand held units which utilize a phoneme-based voice synthesizer to say any word in the English language. To operate the HC-110, the user touches the preprogrammed word, sound, or phrase, (written on an overlay placed on the display board), to be spoken. To use the HC-120 which operates similar to a calculator, the user presses the buttons for a 3-digit code for the vocabulary section. HC-120 can also be operated with an external switch. The external switches are: AT133 Sound Switch - activated by any sound e.g. grunting, tongue clicking, blowing. It has a steel headband and soft foam temple pads for stability and comfort. The headband and microphone are adjustable. AT134 Pedal Switch - activated by gross hand or foot movements. Provides good audible reinforcement and physical feel of the switch function. Requires less than 5 ounces of force applied to center of the large target area. AT160 Touch Switch - for use by people with extreme motor limitations. Activated by very light touch and small deflection. Deflection required can be adjusted. Can be screw-mounted for head or hand operation. AT161 Leaf Switch - for use by people with moderate limitations. Activated by chin, lateral arm movements or other movements of moderate control. Deflecting leaf in either direction activates switch.

(Information based on Votrax literature.)



Photograph courtesy of
Biomedical Engineering
Center

RANDOM ACCESS TAPE RECORDER
(AUDIO MESSAGE PLAYBACK SYSTEM)

DEVELOPER

Biomedical Engin. Ctr.
Tufts-New England Medical Center
171 Harrison Avenue
Box 1014
Boston, MA 02111
(617) 956-5036

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Communicating

PROBLEM(S) IT OVERCOMES

inability to communicate verbally due to severe physical disabilities

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

Contact developer for information about availability and price.

HOW IT WORKS

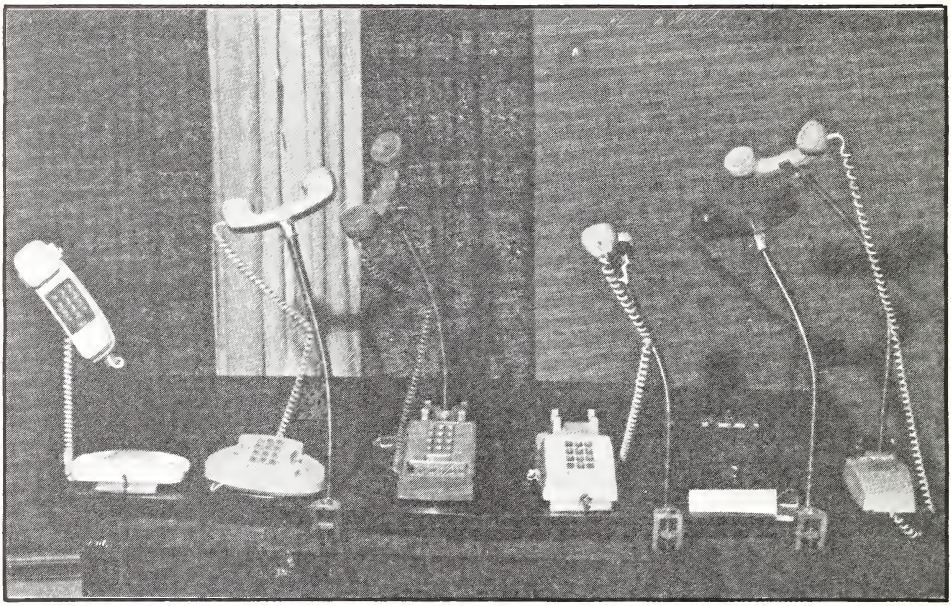
When used in conjunction with a Symbolic Tufts Interactive Communicator (SYMTIC) (p. 186) this specially designed tape recorder provides the user with 56 pre-recorded messages to select from. Each message is 8 seconds long and corresponds to a box on the SYMTIC.

To operate the audio message SYMTIC only one switch is required--either standard or specially adapted for the user. The selection of any box on the SYMTIC will cause that message to be played back.

To program messages onto the tape, all that is required is to place the mode switch into the "record" position, select the box that you wish to assign the message, wait for the "record" light to light, then speak the message.

This device utilizes a clear leader cassette tape available through many distributors. The machine is battery operated but may be operated on house current if a battery charger/illuminator is used.

(Information based on Biomedical Engineering Center literature.)



Photograph courtesy of
Leon Berger

SPARR TELEPHONE ARMS

DEVELOPER

Leon Berger
P.O. Box 143
Allamuchy, NJ 07820
(201) 852-6309

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Speaking on a telephone

PROBLEM(S) IT OVERCOMES

difficulty holding a telephone receiver

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

Sparr Telephone Arm Company
P.O. Box 143
Allamuchy, NJ 07820

$25.00 plus postage

HOW IT WORKS

A heavy-duty steel and chrome flexible rod, in 20", 25" or 29" lengths is the arm. It clamps to the ledge of a desk or table. The telephone receiver is attached to the top of the unit. A multiple button telephone is answered by pressing the lighted button. When the conversation ends, pressing an unlighted button will clear the extension. For telephones with no buttons, a rod is placed across the top of the phone which engages the line when it is removed and opens the line when it is in place.

(Information based on Sparr literature.)

Photograph courtesy of
Specialized Systems, Inc.

SSI SYSTEM 100 COMMUNICATOR AND TELECOMMUNICATION DEVICES

DEVELOPER

Specialized Systems, Inc.
11558 Sorrento Valley Rd.
Building 7
San Diego, CA 92121
(714) 481-6000

CONTACT PERSON

Jane Atkins, Sales Dir.
Specialized Systems, Inc.
11558 Sorrento Valley Rd.
San Diego, CA 92121
(714) 481-6000

WHERE IT IS USED

Communication
Health

PROBLEM(S) IT OVERCOMES

difficulty experienced by deaf persons and persons with speech impairments when trying to communicate by phone

FIELD TESTED

yes

REGULATORY APPROVAL

UL; FCC

WARRANTY PROVIDED

yes

FOR SALE

Specialized Systems, Inc.
11558 Sorrento Valley Road
Building 7
San Diego, CA 92121

Communicator $545, Printer $545, Answerer $399, Master Ring Signaler $45

HOW IT WORKS

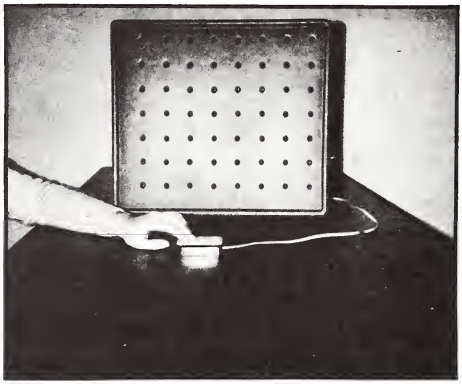
Communicator (TDD/TTY)
A portable electronic "teletype". No connections or wiring required. To use, place the handset on top of the Communicator, dial the number of the other Communicator location you want to "talk" to, and begin your two way typed "conversation". As you type, your words travel across the electronic readout display. Simultaneously, the words are transmitted through the telephone to the other Communicator (TDD/TTY).

Printer
A 48 character per line, thermal printer that attaches to the Communicator. The Printer generates a permanent record of both sides of the conversation on a 5¼" continuous paper roll.
The Printer has a built-in 125 word memory capacity so that you can pretype your message into the Communicator and Printer, store it in the Printer, and send it automatically over the telephone during a call.

Answerer
The Answerer works by itself to send your outgoing message and to record your incoming messages. You may change your outgoing message whenever necessary. The Answerer may also be used to record any conversation or message on a standard cassette tape.

Accessories
Ring Signalers - Works with any lamp to let you know when the phone is ringing. To use, plug a lamp into the Signaler and connect to an AC wall outlet. When the phone rings - the lamp will flash.

(Information based on Specialized Systems, Inc. literature.)



Photographs courtesy of
Biomedical Engineering
Center

SYMBOLIC TUFTS INTERACTIVE COMMUNICATOR (SYMTIC)

DEVELOPER

Biomedical Engin. Center
Tufts-New England Medical Center
171 Harrison Avenue
Box 1014
Boston, MA 02111
(617) 956-5036

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Communicating

PROBLEM(S) IT OVERCOMES

inability to communicate verbally due to severe physical disabilities

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

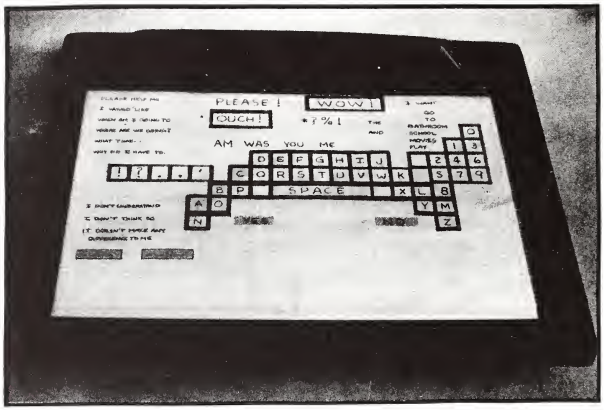
FOR SALE

Contact developer for information about availability and price.

HOW IT WORKS

The SYMTIC is a 56 position scanning communicator and message selection device. It has been designed for those motorically impaired individuals who have at least one controlled muscular movement, but have not yet developed the spelling skills required to operate advanced communication devices.
A simple switch properly interfaced allows the user to operate the SYMTIC. Message selection is accomplished by observing the row-column scanning panel and then making two switch closures. The first allows the user to choose the desired row and the second choice allows the user to choose the column. A third switch closure returns the unit to normal scanning.
Messages, pictures, or phonetic symbols may be attached by clips, or complete overlaps interchanged as needed. The SYMTIC may be placed vertically on a table, used in a lapboard type situation, or hung on a wall. Battery operation makes the SYMTIC easily portable.

(Information based on Biomedical Engineering Center literature.)



Photograph courtesy of
Biomedical Engineering
Center

TACTIC COMMUNICATOR

DEVELOPER

Biomedical Engin. Center
Tufts-New England Medical Center
171 Harrison Avenue
Box 1014
Boston, MA 02111
(617) 956-5036

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Communicating

PROBLEM(S) IT OVERCOMES

inability to communicate effectively due to severe physical disability

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

Contact developer for information about availability and price.

HOW IT WORKS

The TACTIC is an electronic letterboard that allows almost the same flexibility as a paper word board. It utilizes the physical abilities of those nonverbal disabled individuals who are able to interact directly with a communication system either through residual pointing ability or the use of a head pointer. The TACTIC uses a specially fabricated flat switch panel, 22" x 15", that contains 4,000 switch contacts. The typed output of this device is presented on two 20-character, single line displays. One faces the user, and the other faces the listener. A thermal printer can also record the typed output.
The operation of the TACTIC requires that the user be able to exert 6 ounces of force to close a switch contact. The switch panel can be individually programmed to the user's physical and academic abilities.

(Information based on Biomedical Engineering Center literature.)

Photograph not available

TALKING TELEPHONE DIRECTORY

DEVELOPER

Maryland Computer Services
502 Rock Spring Avenue
Bel Air, MD 21014
(301) 838-8888

CONTACT PERSON

Phyllis Barnes
Maryland Computer Services
502 Rock Spring Road
Bel Air, MD 21014
(301) 838-8888

WHERE IT IS USED

Information Operators

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

UL

WARRANTY PROVIDED

yes

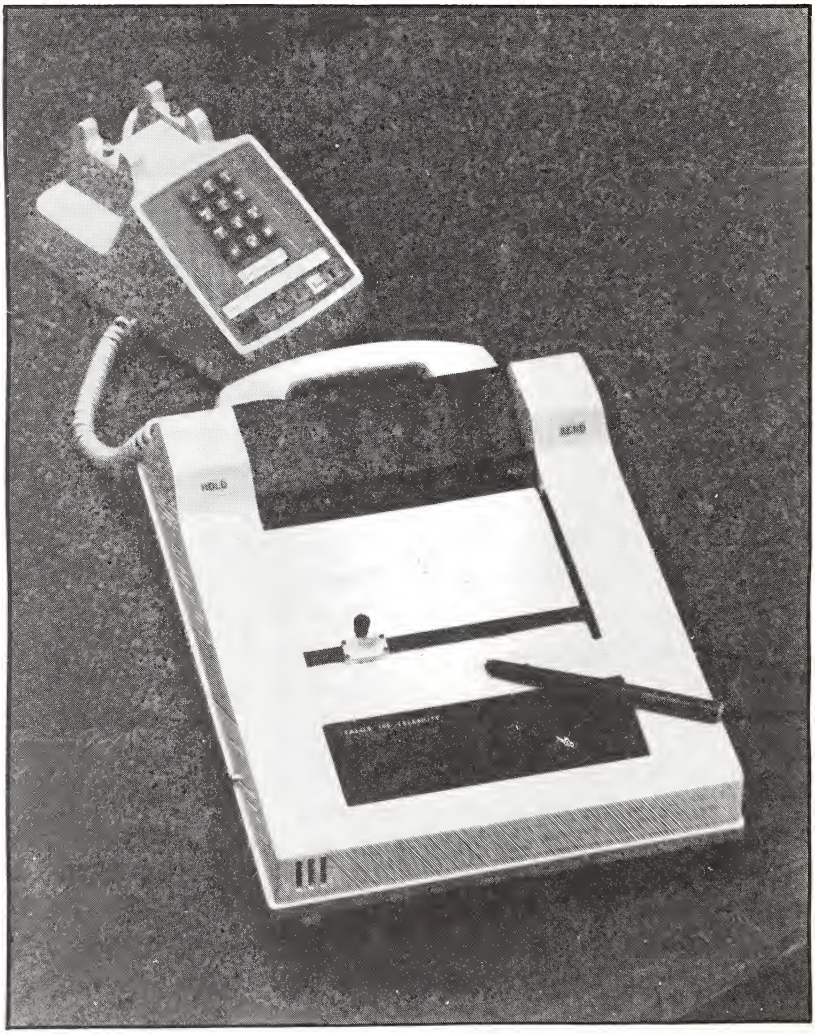
FOR SALE

Maryland Computer Services
502 Rock Spring Avenue
Bel Air, MD 21014

HOW IT WORKS

TTD consists of a desk top computer with a typewriter style keyboard, a speech box with connecting cables, a visual display, a built-in paper tape printer and a tape cartridge or separate optional disk. When the user types in a name, the TTD responds vocally and visually with the corresponding information. If an entry is questioned, the machine vocally requests more information.

(Information based on Maryland Computer Services literature.)



Photograph courtesy of TALOS Systems, Inc.

TELENOTE

DEVELOPER

TALOS Systems, Inc.
7419 E. Helm Dr.
Scottsdale, AZ 85260
(602) 948-6540

CONTACT PERSON

Ron Groshelle
7419 E. Helm Dr.
Scottsdale, AZ 85260
(602) 948-6540

WHERE IT IS USED

Telephone communication

PROBLEM(S) IT OVERCOMES

hearing impairment; no oral communication

FIELD TESTED

yes

all over world

REGULATORY APPROVAL

UL

WARRANTY PROVIDED

yes

FOR SALE

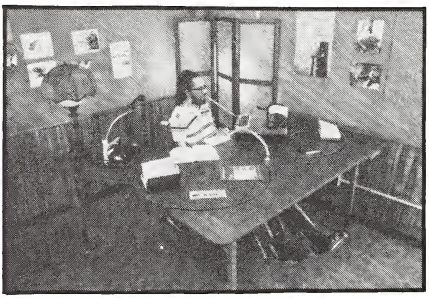
TALOS Systems, Inc.
7419 E. Helm Dr.
Scottsdale, AZ 85260

Price average $2500.00 - depending on options

HOW IT WORKS

Telenote is a voice graphic communication system which enables the user to transmit and receive information in a written form. As the user writes the information to be transmitted it is received at one or many receiving points. Information can be relayed orally along with the written communication.

(Information based on TALOS Systems, Inc. brochure.)



Photographs courtesy of
Arthur Heyer

TELEPHONE ADAPTER

DEVELOPER

Arthur Heyer
Juan-Antonio Heyer
Extensions for Independence
P.O. Box 3754
Downey, CA 90242

CONTACT PERSON

Arthur Heyer
Extensions for Independence
P.O. Box 3754
Downey, CA 90242
(213) 862-2704

WHERE IT IS USED

Communication

PROBLEM(S) IT OVERCOMES

difficulty in operating a phone independently

FIELD TESTED

yes

three years of personal use; presently used by over fifty other quadriplegics

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

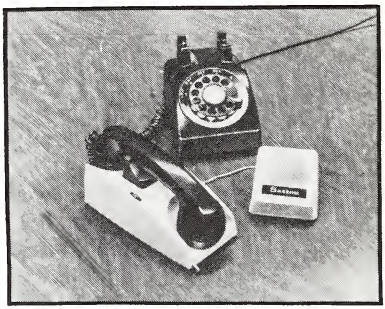
Extensions for Independence
P.O. Box 3754
Downey, CA 90242

$49.50

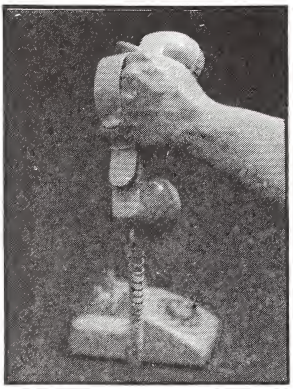
HOW IT WORKS

A gooseneck holder for the receiver, telephone and operating mechanism form a single unit which can be placed on a desk or easily moved around. The gooseneck and operating mechanism are firmly attached to a wooden platform. The platform is finished in woodgrain formica and is designed to accommodate a notebook on the side of the telephone. The unit can be easily arranged or rearranged for right or left-ear use. Any regular telephone or a speakerphone can fit into this system. The phone can be connected or "hung up" with a slight push from a mouthstick or hand.

(Information based on Extensions for Independence literature.)



The Telephone Amplifier



The Phone Holder
Hand Clip

Touchables™

Photographs courtesy of
Maddak, Inc.

DEVELOPER

Manufactured by:
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

CONTACT PERSON

Fred M. Joslyn
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

WHERE IT IS USED

Communication

PROBLEM(S) IT OVERCOMES

hearing impairment; visual impairment; difficulty grasping and holding

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

information not available

FOR SALE

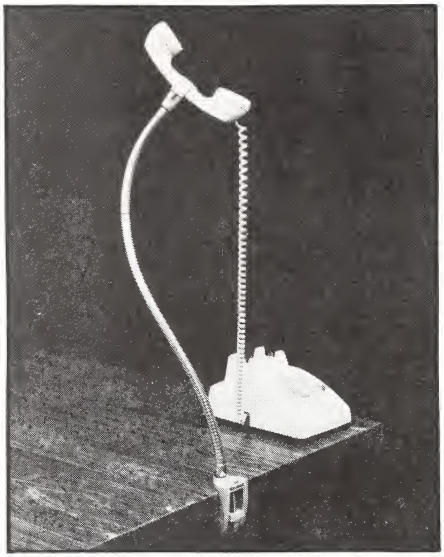
Maddak, Inc.
Pequannock, NJ 07440

Telephone Amplifier	$25.80
Phone Holder Hand Clip	$ 4.85
Touchables™	$10.00

HOW IT WORKS

The Telephone Amplifier amplifies both incoming and outgoing voice signals. The hand set is dropped onto the cradle which then turns on the amplifier. A volume adjustment knob is located on the cradle. It is fully transistorized-9 volt battery included. The Phone Holder Hand Clip has velcro straps which wrap around the telephone hand set. This molded styrene spring action hand clip is useful for anyone who has difficulty in grasping and holding. Touchables™ is a plastic attachment which fits directly over the standard touch phone keyboard and immediately provides significantly enlarged keys and numbers. The new keyboard is attached to the telephone at four corners by adhesive pads, (supplied). The over sized numbers are a big help to those with reduced vision, and the larger buttons make it easier for those with reduced muscle coordination to avoid mistakes in dialing.

(Information based on Maddak Catalog No. 479, 1979.)



The Telephone Extension Arm

The Telephone Stand

Photographs courtesy of
Maddak, Inc.

TELEPHONE EXTENSIONS

DEVELOPER

Manufactured by:
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

CONTACT PERSON

Fred M. Joslyn
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

WHERE IT IS USED

Communication

PROBLEM(S) IT OVERCOMES

weakness of upper extremeties

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

information not available

FOR SALE

Maddak, Inc.
Pequannock, NJ 07440

Telephone Extension Arm	$37.50
Telephone Stand	$65.00

HOW IT WORKS

The Telephone Extension Arm is a 29" long semi-rigid clamp-on carrier for the telephone hand set which permits use with free hands. The hand set may be left attached to the extension arm at all times. In use, the arm is always in a position to keep the hand set comfortably located for the user. When call is completed, a flat steel bar can be placed on the telephone cradle to cut off the signal (steel bar included). The Telephone Stand is a steel base on 4 rubber feet with an attached handset clamp and line interrupter.

(Information based on Maddak Catalog No. 479, 1979.)

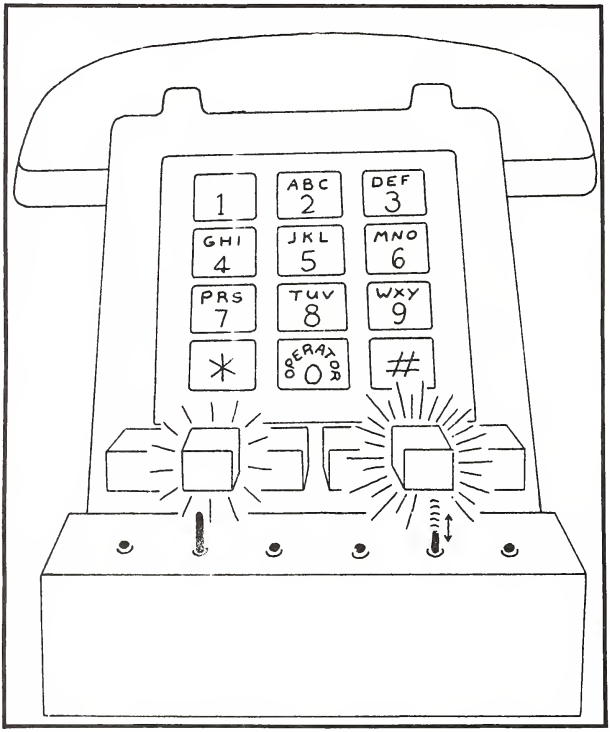


Illustration courtesy of
Science for the Blind
Products

TELE-TAC

DEVELOPER

CONTACT PERSON

Tom Benham
Science for the Blind
Products
Box 385
Wayne, PA 19087
(215) 687-3731

WHERE IT IS USED

Anywhere telephones are used
Receptionist

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

Science for the Blind Products
Box 385
Wayne, PA 19087

$195.00

HOW IT WORKS

The Tele-Tac is a tactile device for reading the lights on a multi-line telephone. A raised pin signals busy line; bouncing pin indicates line on hold; rising and falling pin signifies ringing line. It operates on a push-button or dial phone with five line buttons and one hold button. The phone is placed in the adjustable frame so that photo-cells look at the buttons. When a particular cell sees a light, its corresponding pin, located directly in front of the button, is activated. The phone can be handled quickly, quietly and efficiently by a totally blind person with little or no special training.

(Information based on Science for the Blind literature.)

Photograph courtesy of
Wendy Eilers

TELETRYM

DEVELOPER

Teletrym Corp.
A Subsidiary of Micon Ind.
252 Oak Street
Oakland, CA 94607
(415) 763-6033

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Communication

PROBLEM(S) IT OVERCOMES

a deaf person's inability to communicate verbally on the phone

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

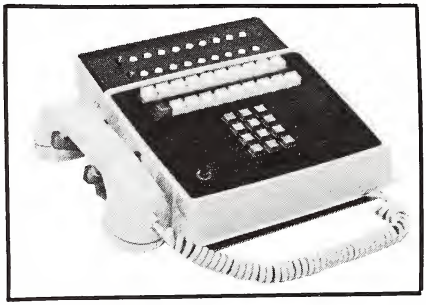
Micon Industries
252 Oak Street
Oakland, CA 94607

$995.00

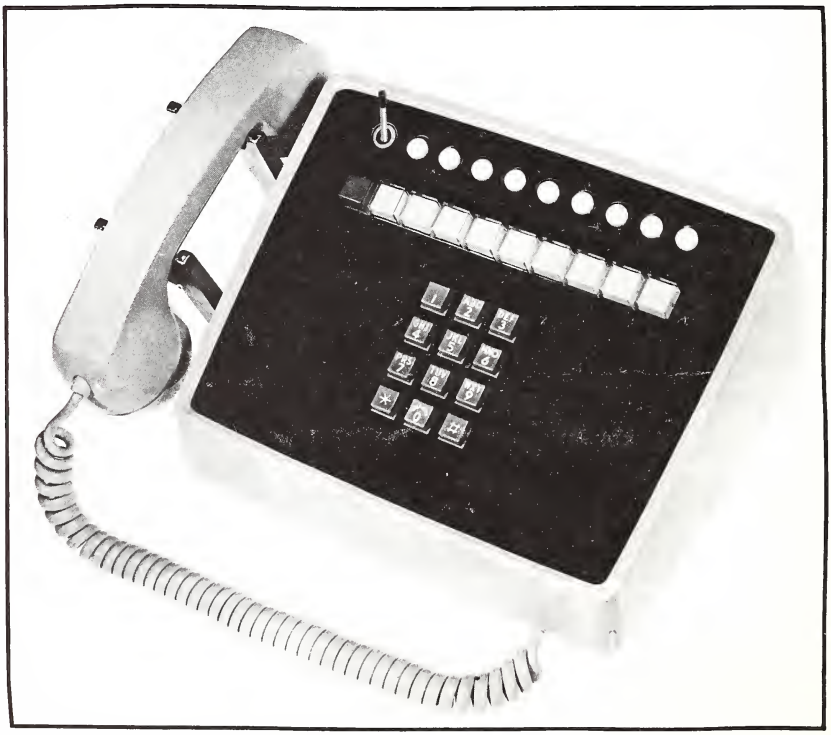
HOW IT WORKS

This machine is a totally automatic answering TTY. Its features include: HARD COPY ROLL PRINTER. This wide roll printer uses no ink and prints 48 characters on a line. It is easily read and is fully compatible with older machines. It shows the letter immediately after typing. BUILT-IN COUPLER. The Teletrym features the Hardwire Interconnect method of connecting to the telephone system. This method eliminates problems associated with accoustical cups. AUTOMATIC ANSWERING. When this feature is on, the Teletrym will automatically answer an incoming call and ask the caller to leave a message of any length. When finished, it automatically disconnects itself and waits for the next call. KEYBOARD DIALING. You dial your numbers through the Teletrym keyboard -- No need for a standard telephone. BUILT-IN RING DETECTOR AND RECEPTACLE. Automatically senses incoming call and signals through receptacle. A buzzer option is available for hearing users. RE-DIAL. If the number you call is busy or not at home, this feature will re-dial the same number at the touch of a button. The Teletrym is not a portable, but at 12"x15"x6" and weighing 12 lbs., it can be easily transported. It also features the Modular Plug, a Telephone Company standard, which can be simply installed.

(Information based on company literature.)



Twenty-button telephone



Ten-button telephone

Photographs courtesy of Telephonic Equipment

TOUCH FONE ADAPTOR

DEVELOPER

Telephonic Equipment
17401 Armstrong Avenue
Irvine, CA 92714
(714) 546-7900

CONTACT PERSON

Robert A. Carr
Telephonic Equipment
17401 Armstrong Avenue
Irvine, CA 92714
(714) 546-7900

WHERE IT IS USED

Monitoring telephone calls

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

yes

C&P Telephone Company of West Virginia

REGULATORY APPROVAL

no

WARRANTY PROVIDED

yes

FOR SALE

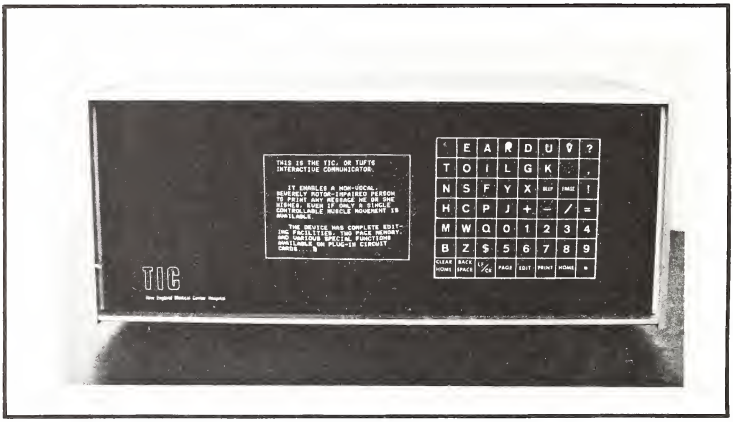
See dealers list in appendix.

$215.00

HOW IT WORKS

Designed to mount in a TEC switch bracket or to replace the top row of switiches of a 20-button telephone, the switch assembly is 8"x3" consisting of nine operating buttons and an on and off switch which line up with the lines keys and hold button of a 10- or 20-button key telephone. To operate, the toggle handle is placed facing away from the user which turns on the switch. To determine individual line status, the user can run his or her fingertips across the switch assembly. If the Touch Fone button is in the Up position, that line is in use; if in the Down position, flush with face plate, that line is idle. For lines that are on Hold, the button will be up then will jump down briefly twice per second, corresponding to the "wink" of the Hold light. For lines that are Ringing, the button will move up and down steadly 1/2 second up, 1/2 second down, corresponding to the "flash" of the Ring light.

(Information based on Telephonic Equipment literature.)



Photograph courtesy of
Biomedical Engineering
Center

TUFTS INTERACTIVE COMMUNICATOR

DEVELOPER

Biomedical Engin. Ctr.
Tufts-New England Medical Center
171 Harrison Avenue
Box 1014
Boston, MA 02111
(617) 956-5036

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Communicating

PROBLEM(S) IT OVERCOMES

inability to communicate verbally due to severe physical disability

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

Contact developer for information about availability and price.

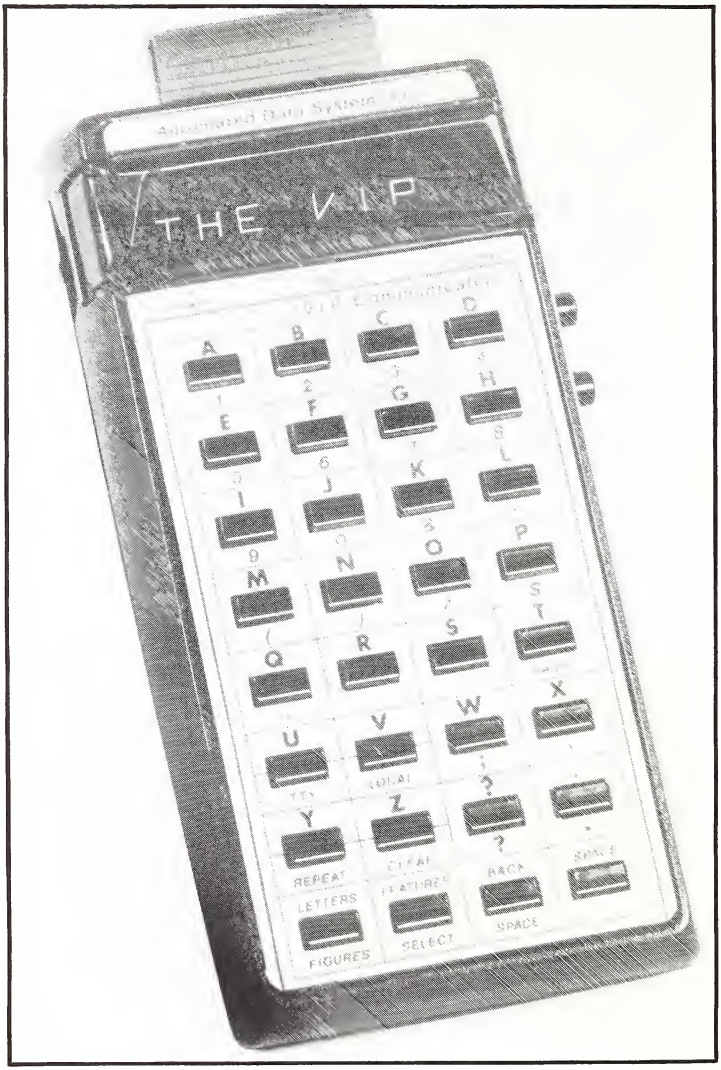
HOW IT WORKS

The electronically scanned keyboard of the Tufts Interactive Communicator (T.I.C.) can be activated and used by someone with only one controllable muscular movement; the user has complete access to all typewriter functions. The T.I.C. presents its typed output on both a 1000 character video display and a paper strip printer.

The visual keyboard consists of seven rows each containing eight characters. The unit automatically scans the keyboard from top to bottom, one row at a time. Selection of a row is indicated by a single activation of the input switch. The T.I.C. then scans the individual characters of the row. Selection of a particular letter or number is indicated by a second switch signal. The chosen character is then printed on the video screen to the left of the keyboard.

The seventh row is reserved for controlling characters such as: backspace, line feed carriage return, erase, etc. The video screen can be edited to allow the user to make modifications to previously typed text. Once the user is satisfied, the "print" command causes the contents of the video screen to be copied onto a paper strip printer. An optional version of the machine allows the printer to operate simultaneously with the video screen.

(Information based on Biomedical Engineering Center literature.)



Photograph courtesy of Sue Englke, ADS, Inc.

VIP COMMUNICATOR

DEVELOPER

Automated Data Systems, Inc.
P.O. Box 4062
Madison, WI 53711
(608) 273-0707 (Voice or TTY)

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Communication

PROBLEM(S) IT OVERCOMES

difficulty experienced by deaf persons in communicating by phone

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

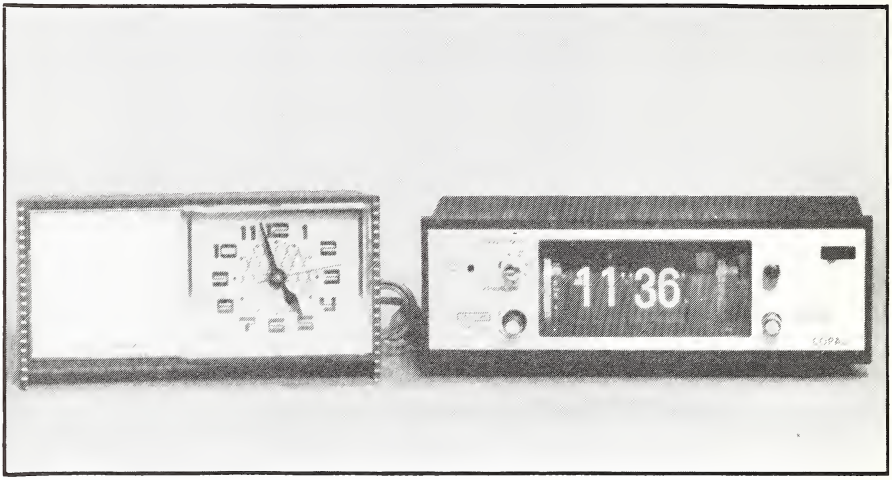
Automated Data Systems, Inc.
P.O. Box 4062
Madison, WI 53711

VIP: $179.00 + shipping
Talking Pocket: $79.00

HOW IT WORKS

Features - The VIP weighs 9 oz. It has an automatic carriage-return and line-feed for use with printing TTYs, a back-space key, a light to tell you when there is a dial tone, ringing, or busy signal on the telephone, a clear key for clearing the display, a "memory" that lets you backspace up to 45 characters to review a message. Because question marks and periods are used so often, the VIP lets you type them without needing to type the figures key and then the letters key (VIP's computer does it for you). Emergency messages of up to 45 characters may be entered in VIP's memory. By pressing the features and then the repeat keys, the message will be sent over and over. This lets you attend to the emergency while the person receiving your call can get help. Option - The Talking Pocket. This device is used to "talk" with other people face to face. The Talking Pocket may be worn on your shirt pocket, blouse, or lapel. When words are typed on the VIP, they appear on the Talking Pocket as well. The person you are "talking" to simply reads the words from your pocket. This is very useful when talking to hearing persons since they often do not understand sign language. The VIP comes complete with rechargeable batteries, AC adapter, telephone connectors, carrying case, and instruction booklet. The optional Talking Pocket may be ordered separately.

(Information based on company literature.)



Photograph courtesy of
Howard M. Haines

VISUAL ALARM CLOCK/SLEEP TIMER

DEVELOPER

Nationwide Flashing
Signals System
P.O. Box 6146
Silver Spring, MD 20906
(301) 593-2755

CONTACT PERSON

Howard M. Haines
Nationwide Flashing
Signals System
P.O. Box 6146
Silver Spring, MD 20906
(301) 593-2755

WHERE IT IS USED

Home Economics
Homemaking
Office Occupations

PROBLEM(S) IT OVERCOMES

inability to hear a conventional alarm clock or timer

FIELD TESTED

yes

REGULATORY APPROVAL

UL

WARRANTY PROVIDED

yes

FOR SALE

Nationwide Flashing Signals Systems
P.O. Box 6146
Silver Spring, MD 20906

clock $32.00 timer $55.00

HOW IT WORKS

Each of these products is a separate piece of equipment. The clock will emit a flashing light signal or activate a mattress vibrator or lamp to awaken a hearing impaired person. The clock face is illuminated also. The sleep timer is a digital clock with a sleep timer. The alarm can be set up to use both a buzzer and a table lamp at the same time.

(Information based on Nationwide Flashing Signals System literature.)

COMPUTER PROCESSING

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Computer Flowchart Symbol Stamps . . 216

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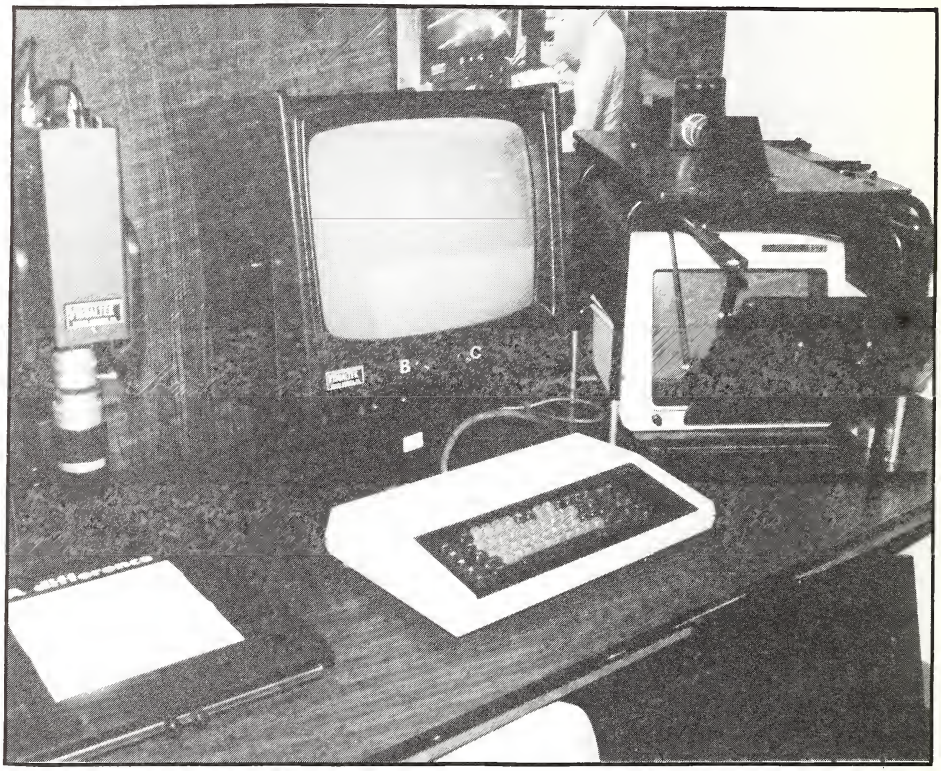


Photograph courtesy of
Visualtek

CATHODE RAY TUBE VIEWING SYSTEM

DEVELOPER

Visualtek
1610 26th Street
Santa Monica, CA 90404
(213) 829-6841

CONTACT PERSON

Hank Cunningham
1920 E. 87th Street
Bloomington, MN 55420
(612) 854-6098

or Marc Stenzel
Visualtek
(213) 829-6841

WHERE IT IS USED

Computer Programming
Data Entry
Information Retrival
Reading

PROBLEM(S) IT OVERCOMES

small character size of computer display

FIELD TESTED

yes

States of Minnesota, Illinois

REGULATORY APPROVAL

Department of Building and Safety -
Los Angeles, CA

WARRANTY PROVIDED

yes

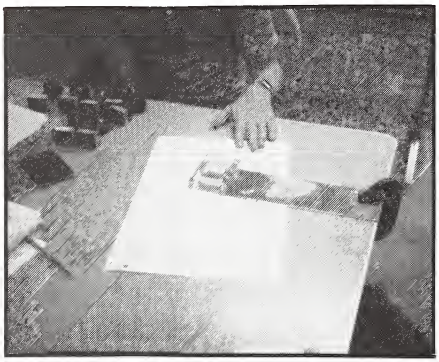
FOR SALE

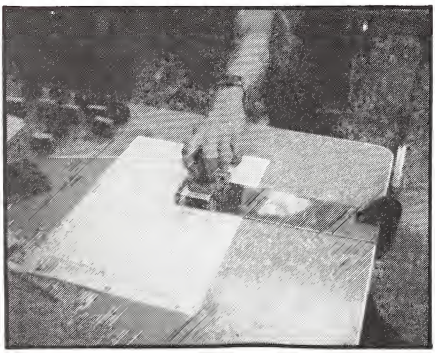
Visualtek
1610 26th Street
Santa Monica, CA 90404

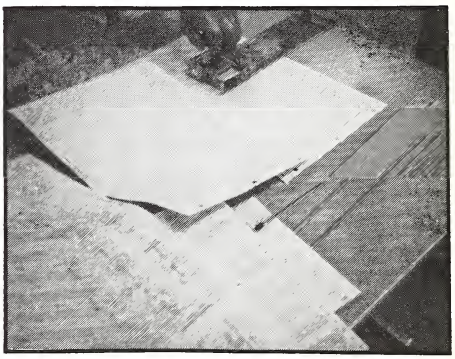
HOW IT WORKS

For use with computer terminals using a cathode ray tube (CRT), the viewing system (CVS) mounts above the display unit with support legs on either side and a mirror facing the front of the screen. This "retractable mirror assembly" can be slid out of the way for direct access to the CRT. Maximum magnification is approximately 20X with 2" high letters, maximum scanning area of the CRT display is 11" x 8.5". The unit was developed to enlarge characters of a CRT already providing sufficient brightness and contrast. By operating a control handle, user can line-scan horizontally and vertically. Horizontal travel is adjusted to reading material by margin stops, vertical position is maintained by friction brake.

(Information based on Visualtek literature.)







Photographs courtesy of
David F. Law, Jr.

COMPUTER FLOWCHART SYMBOL STAMPS

DEVELOPER

Woodrow Wilson Rehab. Ctr.
Rehab. Engineering Dept.
Fishersville, VA 22939
(703) 885-9724

CONTACT PERSON

David F. Law, Jr.
Woodrow Wilson Rehab. Ctr.
Rehab. Engineering Ctr.
Fishersville, VA 22939
(703) 885-9724

WHERE IT IS USED

Data Processing

PROBLEM(S) IT OVERCOMES

inability to use flowcharting stencils effectively

FIELD TESTED

yes

Woodrow Wilson Rehabilitation Center

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

no

FOR SALE

no

HOW IT WORKS

Due to extreme spasticity, some individuals in Data Processing could not use flowcharting stencils to draw the symbols. All of the commonly used symbols were purchased on rubber stamps which are inserted in a Plexiglas guide plate once the individual has properly positioned the flowchart under it. Since the rectangular hole is machined with a slight shoulder around the bottom, the stamp automatically levels itself when inserted, thus eliminating smudges and errors resulting from stamp rocking.

(Information provided by David F. Law, Jr.)

COMPUTER PROGRAMMER STATION MODIFICATION FOR SINGLE KEY STROKE ENTRY

Photograph not available

COMPUTER PROGRAMMER STATION MODIFICATION FOR SINGLE KEY STROKE ENTRY

DEVELOPER

Clinical Convenience Products
Contracting Serv. Div.
2070 Helena Street
Madison, WI 53704
(608) 251-2882

CONTACT PERSON

Don Warren
2070 Helena Street
Madison, WI 53704
(608) 251-2882

WHERE IT IS USED

Computer Programming

PROBLEM(S) IT OVERCOMES

inability to depress more than one key concurrently

FIELD TESTED

yes

individual's training and work environment

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

Clinical Convenience Products
2070 Helena Street
Madison, WI 53704

price range $85.00 to $400.00, dependent upon model

HOW IT WORKS

A computer system was modified to meet individual's unique problem of key entry. Individual is capable of single key stroke entry. Numerous central process unit functions require multiple concurrent key depressions. Central process unit terminal keyboard was modified to allow all control of the keyboard by single key stroke method. The custom keyboard cathode ray tube and central processing unit were interfaced with a printer.

(Information provided by Ricardo Cerna, Rehabilitation Engineering Specialist, Wisconsin Division of Vocational Rehabilitation, and Don Warren.)

Photograph courtesy of
Clement Laboratories

DEVELOPER

Clement Laboratories
2560 Wyandotte Street
Mt. View, CA 94043
(415) 964-0921

CONTACT PERSON

Ms. J. Klein
Clement Laboratories
2560 Wyandotte Street
Mt. View, CA 94043
(415) 964-0921

WHERE IT IS USED

Operating computer terminal

PROBLEM(S) IT OVERCOMES

arm fatigue; visual impairment

FIELD TESTED

yes

users in California and Arkansas

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

no

FOR SALE

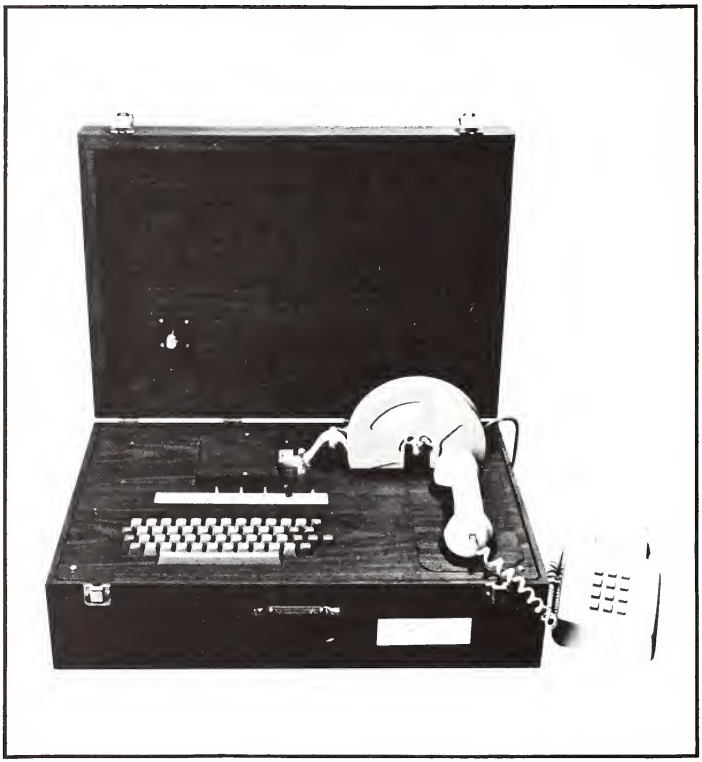
Clement Laboratories
2560 Wyandotte Street
Mt. View, CA 94043

$550.00 plus $150.00 engineering fee if CRT housing is new to Clement

HOW IT WORKS

The Tracking Guide is made for use with an Optacon Camera, (see p. 566) equipped with a cathode ray tube, (CRT) Lens Module. It mounts on a data terminal or word processor CRT display. A user is able to follow lines or columns of alphanumeric characters across a CRT display. The camera can be left in place at any position on the screen when the user's hands are engaged in other tasks.

(Information based on Clement Laboratories information letters and report abstract.)



Photograph courtesy of Tri-
formation Systems

EMBOSSER MODEL ISE-1 (THE INTERACTIVE STRIP EMBOSSER)

DEVELOPER

Triformation Systems
3132 S.E. Jay Street
Stuart, FL 33494
(305) 283-4817

CONTACT PERSON

Guy Carbonneau, President
Triformation Systems
3132 S.E. Jay Street
Stuart, FL 33494
(305) 283-4817

WHERE IT IS USED

Used as an input or output station for data processing with an on-line computer system

PROBLEM(S) IT OVERCOMES

visual impairment; inability to read computer printout visually

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

Triformation Systems
3132 S.E. Jay Street
Stuart, FL 33494

As of 1/1/80
$3,200.00

HOW IT WORKS

This braille computer terminal or Interactive Strip Embosser offers a communication device which embosses braille at ten characters per second on strip paper tape.
Using the ISE-1 standard keyboard, it is possible to request information from computers, or other data storage sources such as digital cassettes, and obtain braille responses in a matter of seconds. Several equipment, installation and training options are available.

(Information based on Triformation Systems product literature.)

I.B.M. CARD READER WITH TACTILE OR VOICE OUTPUT

Photograph courtesy of J.C.
Swail

I.B.M. CARD READER WITH TACTILE OR VOICE OUTPUT

DEVELOPER

J.C. Swail
National Research Council
M-50
Dee R182 Montreal Road
Ottawa Ontario
Canada
K1A OR8

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Computer Programming
Data Entry

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

yes

Errol Hembroff-British Columbia, Canada
Computer Services

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

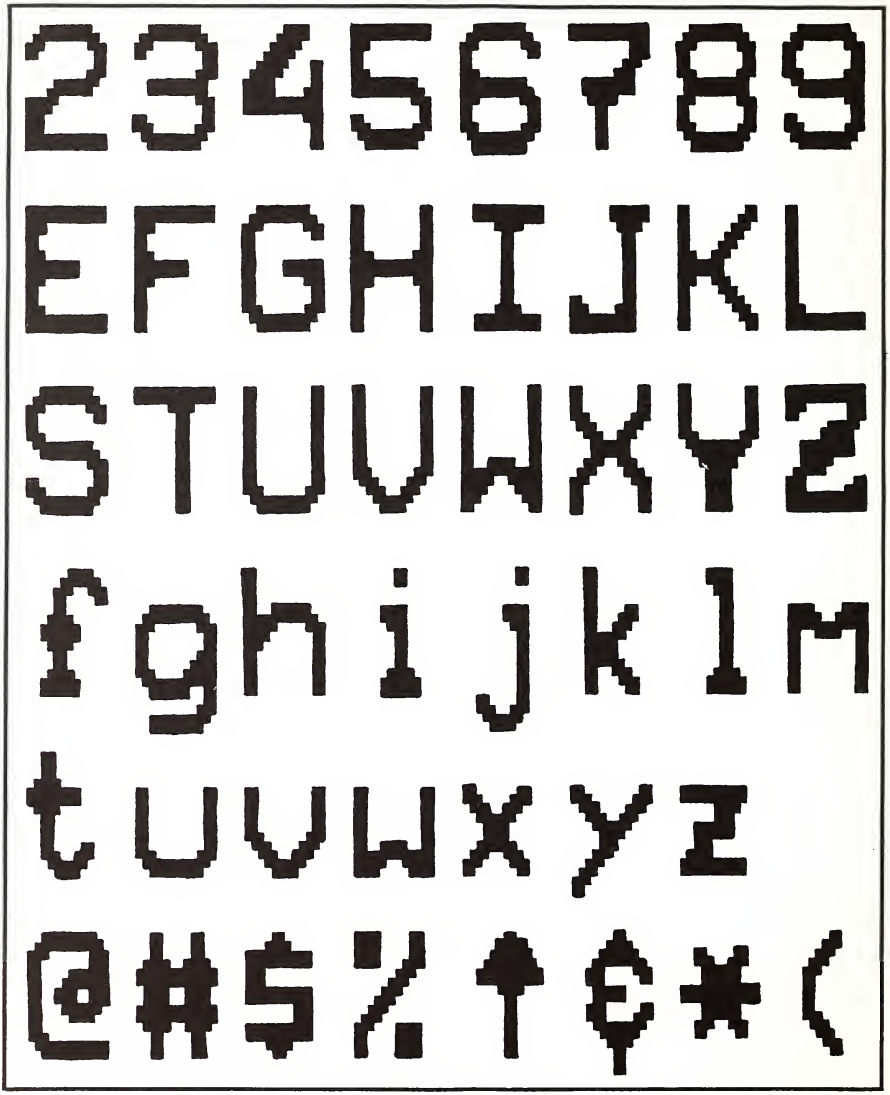
FOR SALE

no

HOW IT WORKS

Unit reads IBM punch cards and generates either tactile or voice output for the user.

(Information provided by J.C. Swail, N.R.C.)



Print-Out courtesy of McBurney Resource Center for Persons with Disabilities, University of Wisconsin-Madison

LARGE LETTER COMPUTER PRINT-OUT

DEVELOPER

Paul Haeberli
Prof. Ed Desautels
Computer Sciences
University of Wisconsin-Madison
Madison, WI 53706
(608) 262-0620

CONTACT PERSON

Prof. Ed Desautels
Computer Sciences
University of Wisconsin-Madison
Madison, WI 53706
(608) 262-0620

WHERE IT IS USED

Computer Processing
Reading

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

yes

used at University of Wisconsin-Madison

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

Printronix Inc.
17421 Derian Avenue
P.O. Box 19559
Irvine, CA 92713

Also see appendix for distributor list of "Printronix" printer.

HOW IT WORKS

A program was written to print text on a dot matrix printer, ("Printronix"), and produce the text in large letters. Letter size could be changed by modifying the program. The printer can be driven by almost any available computer.

(Information provided by Professor Ed Desautels, UW-Madison.)

Photograph courtesy of ARTS Associates, Inc.

LARGE PRINT VIDEO TERMINAL (LPVT)

DEVELOPER

ARTS Systems, Inc.
80 Boylston Street
Suite 1260
Boston, MA 02116
(617) 482-8248

CONTACT PERSON

Peter Duran
ARTS Systems, Inc.
80 Boylston Street
Suite 1260
Boston, MA 02116
(617) 482-8248

WHERE IT IS USED

Computer Programming
Data Entry
Information Retrieval
Reading
Word Processing

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

yes

Sensory Aids Foundation - California;
Xerox - New York

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

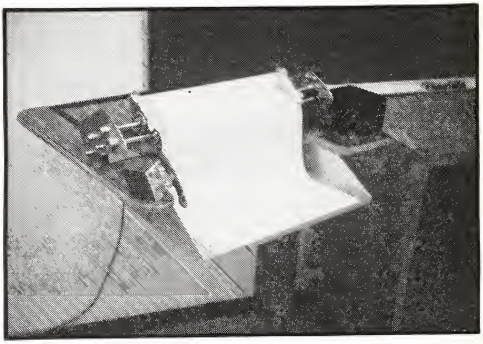
ARTS Systems, Inc.
80 Boylston Street
Suite 1260
Boston, MA 02116

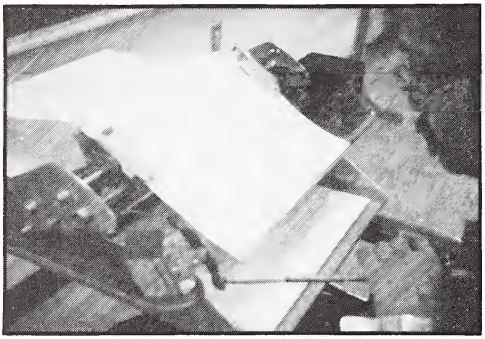
$10,500

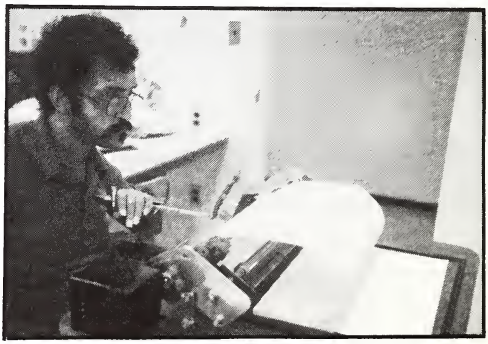
HOW IT WORKS

LPVT is a modified CRT terminal that plugs into a computer system through the RS232C interface and allows the user to select the size print to be displayed on the screen. The user can select four character sizes: standard 3/16", double height 6/16", giant 1½" or double giant 3". The user can select from eight foreground and background color combinations to provide the best contrast for individual visual needs. This unit can be used by both visually impaired and unimpaired people.

(Information based on ARTS literature.)







Photographs courtesy of
David F. Law, Jr.

MOUTHSTICK OPERABLE COMPUTER PRINTOUT READER/REVIEWER

DEVELOPER

Woodrow Wilson Rehab. Ctr.
Rehab. Engineering Dept.
Fishersville, VA 22939
(703) 885-9724

CONTACT PERSON

David F. Law, Jr.
Woodrow Wilson Rehab. Ctr.
Rehab. Engineering Dept.
Fishersville, VA 22939
(703) 885-9725

WHERE IT IS USED

Data Processing

PROBLEM(S) IT OVERCOMES

difficulty experienced by quadriplegic employees in data processing

FIELD TESTED

yes

Woodrow Wilson Rehabilitation Center

REGULATORY APPROVAL

no

WARRANTY PROVIDED

information not available

FOR SALE

Woodrow Wilson Rehabilitation Center
Rehab. Engineering Dept.
Fishersville, VA 22939

$228.60

HOW IT WORKS

This unit feeds a stack of continuous form paper from a holding tray, past the operator's work area, and into another holding tray. Unit has a two-speed reversible motor thus allowing it to scan in either direction. Paper flows over a metal backing plate which allows alterations or corrections to be made by mouthstick writer.

(Information provided by David F. Law, Jr.)

Photograph not available

THE ORATOR TALKING TERMINAL

DEVELOPER

ARTS Computer Products
80 Boylston Street
Suite 1260
Boston, MA 02116
(617) 482-8248

CONTACT PERSON

Peter Duran
ARTS Computer Products
80 Boylston Street
Suite 1260
Boston, MA 02116
(617) 482-8248

WHERE IT IS USED

Computer Programming
Data Entry
Word Processing

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

ARTS Computer Products
80 Boylston St.
Suite 1260
Boston, MA 02116

$10,000 complete unit

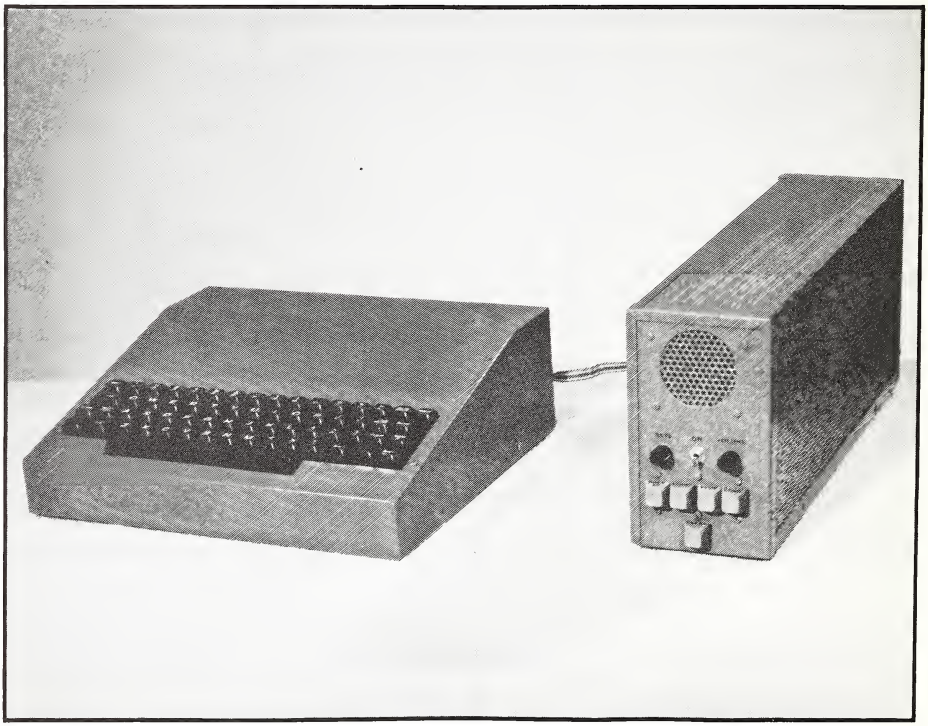
HOW IT WORKS

The Orator enables a computer to speak its input or output in synthetic speech. The user can select speech rate, when to hear speech, whether or not to hear capitalization, punctuation, etc. The Orator can be set in either word mode or spell mode to pronounce whole words or spell each character. In word mode the Orator uses 300 rules to produce the appropriate sound giving it an unlimited vocabulary.

One of the Orator's capabilities is the "Echo" which speaks material as it is being typed. It can speak characters, words or lines as they are entered.

The Orator software package is available for a number of different computers, (contact ARTS). There is also a complete Orator Unit consisting of the Orator software in PROMs using an 8080 microprocessor, a keyboard and synthesizer. The Orator Unit is RS232C compatible and will operate in both local and on line modes.

(Information based on ARTS literature; verbal explanation provided by Ron Myren, Wisconsin Vocational Studies Center.)



Photograph courtesy of J.C.
Swail

SYNTHETIC SPEECH TERMINAL

DEVELOPER

J.C. Swail
National Research Council
M-50
Dee R182 Montreal Road
Ottawa Ontario
Canada
K1A OR8

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Computer Programming
Data Entry
Information Retrieval

PROBLEM(S) IT OVERCOMES

visual impairment

HOW IT WORKS

Unit accepts material in serial ASCII RS232 interface and generates synthetic spelled speech. It has storage capacity of 8,000 characters with search facilities.

(Information provided by J.C. Swail, N.R.C.)

FIELD TESTED

yes

Canadian National Institute for the Blind-Toronto, Canada

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

no

Photograph not available

TALKING KEYPUNCH AND CARD-READER FOR THE VISUALLY HANDICAPPED

DEVELOPER

Professor C.Y. Suen
Concordia University
Montreal, Quebec, Canada
and
Professor M.P. Beddoes
Univ. of British Columbia
Vancouver, B.C., Canada

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Computer Programming
Data Entry

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

yes

Concordia University-Montreal, Canada
Univ. of British Columbia-Vancouver, Canada

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

M.P. Beddoes
Dept. of Electrical Engineering
University of British Columbia
Vancouver, B.C. Canada
V6T 1W5

HOW IT WORKS

Unit reads punched-cards and in synthesized voice tells what has been read. In synthesized voice it can tell the user which character has been keyed in. Same speech synthesizer can be used for any electronic equipment such as a computer terminal and tells the user what has been keyed or punched.

(Information provided by Professor C.Y. Suen, Concordia University.)

TOTAL TALK FULL SPEECH COMPUTER TERMINAL

DEVELOPER

Maryland Computer Services
502 Rock Spring Avenue
Bel Air, MD 21014
(301) 838-8888

CONTACT PERSON

Phyllis Barnes
Maryland Computer Services
502 Rock Spring Avenue
Bel Air, MD 21014
(301) 838-8888

WHERE IT IS USED

Computer Programming
Data Entry
Education
Information Retrival
Word Processing

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

UL

WARRANTY PROVIDED

yes

FOR SALE

Maryland Computer Services
502 Rock Spring Avenue
Bel Air, MD 21014

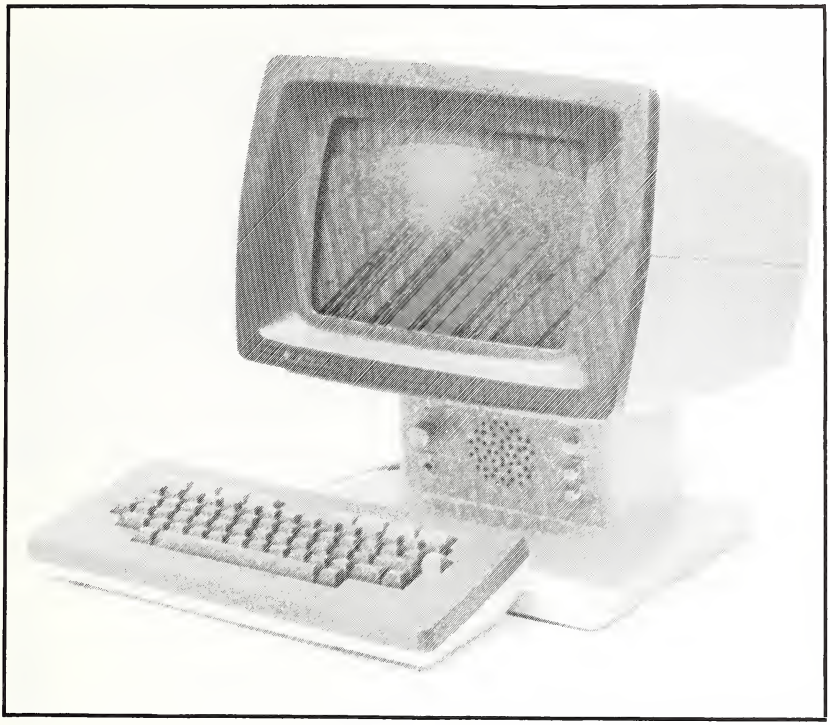
$5,995.00

HOW IT WORKS

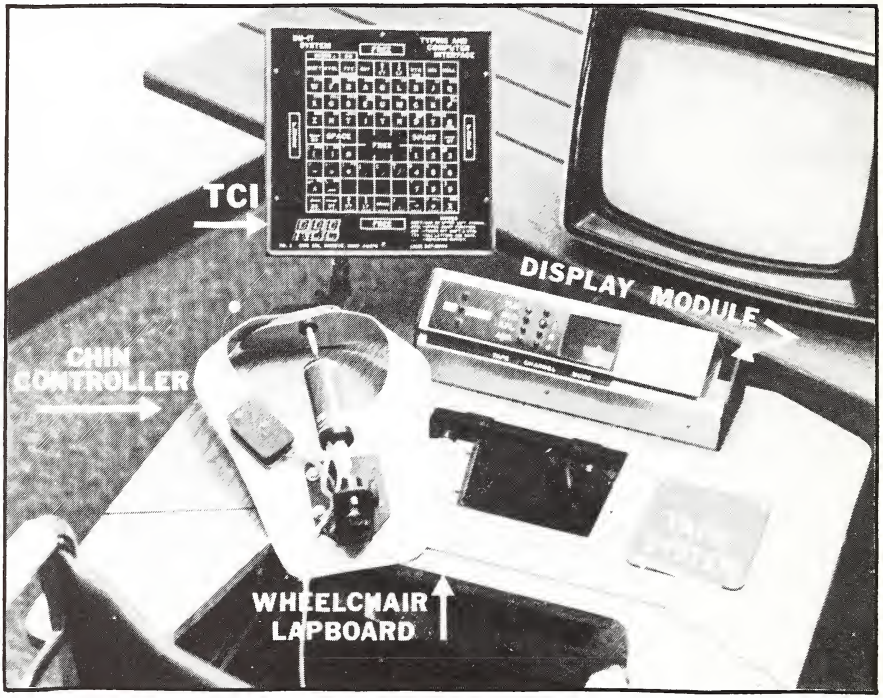
Total Talk is a computer terminal with the ability to speak in full word synthetic speech. Total Talk converts computer transmitted data and information entered on the keyboard into synthetic speech. It has an unlimited vocabulary using rules for enunciation and inflection for voice clarity. The user can listen to full word or spelled speech. Total Talk can be instructed to speak information as it is sent to or received by the computer. Users can position the cursor (up, down, left, right) to begin speaking from the desired location. A CURSOR LOCATION key vocally tells the user the cursor's position on the CRT screen.

Total Talk uses the Hewlett-Packard 2621A Interactive Terminal. The speech synthesizer, CRT screen, earphone jack and control knobs are housed in one unit. A keyboard is attached by cable.

(Information based on Maryland Computer Services literature.)



Photograph courtesy of Maryland Computer Services



Photograph courtesy of
Romich, Beery and Bayer,
Inc.

TYPING AND COMPUTER INTERFACE (TCI-1)

DEVELOPER

Romich, Beery and Bayer, Inc.
RD 2, Box 191
Shreve, OH 44676
(216) 567-2906

CONTACT PERSON

David Bayer
Romich, Beery and Bayer, Inc.
RD 2, Box 191
Shreve, OH 44676
(216) 567-2906

WHERE IT IS USED

Computer Programming
Data Entry
Information Retrival
Typing

PROBLEM(S) IT OVERCOMES

limited movement control

FIELD TESTED

yes

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

Romich, Beery and Bayer, Inc.
RD 2, Box 191
Shreve, OH 44676

$800.00-$2400.00 depending on application

HOW IT WORKS

The Typing & Computer Interface (TCI) operates as a plug-in accessory to the DU-IT MCB wheelchair control system (see p. 308). With extra interface hardware it can be operated by itself or thru the DLT wheelchair system. It provides a means to interface with a computer or to accomplish typing and other data entry operations. It requires operator precision in positioning a chin controller or joystick (range of motion expansion technique). Typical users achieve approximately 10 wpm typing rates (in the first few hours of use).

(Information provided by David M. Bayer, Romich, Beery and Bayer, Inc.)

VS-6

ML-I

Photographs courtesy of Votrax

DEVELOPER

Votrax Division
Federal Screw Works
500 Stephenson Hwy.
Troy, MI 48084
(313) 588-2050

CONTACT PERSON

Diane DeHaven
Votrax Division
Federal Screw Works
500 Stephenson Hwy.
Troy, MI 48084
(313) 588-2050

WHERE IT IS USED

Computer Programming
Education
Information Retrieval - (in place of person)

PROBLEM(S) IT OVERCOMES

visual impairment of a computer programmer

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

Votrax Division
Federal Screw Works
500 Stephenson Hwy.
Troy, MI 48084

Price dependent on customer specifications.

HOW IT WORKS

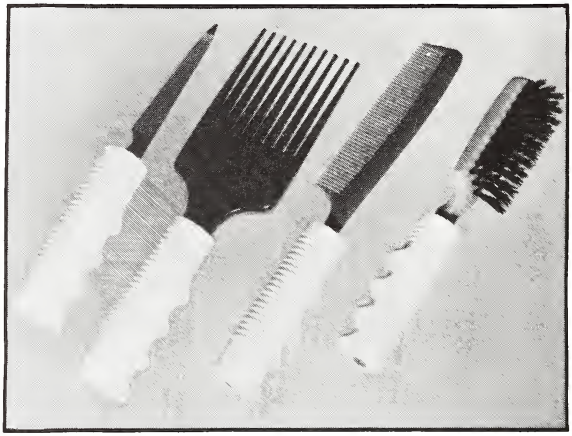
These models are solid state units producing electronically synthesized speech from low-speed digital input. The synthesized voice speaks back the data entered by the programmer. A Votrax interface provides the means of getting digital information from the driving device (usually a computer), by instructing the synthesizers to sound out phonemes in a sequence forming words, the synthesizer phrases and sentences. Rate and inflection levels are also assigned to each phoneme giving the synthesized human voice characteristically natural flowing speech. Interfaces are compatible with most conventional computers and communications equipment. The ML-I model also has a multi-lingual voice system.

(Information based on Votrax literature.)

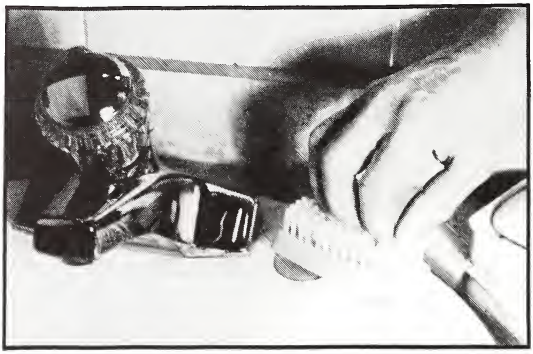
COSMETOLOGY

Combs and Brushes 246

Nail Clippers 248



Grooming Aids



Nail Brush with Suction Cups

Photographs courtesy of
Maddak, Inc.

DEVELOPER

Manufactured by:
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

CONTACT PERSON

Fred M. Joslyn
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

WHERE IT IS USED

Cosmetology
Personal Grooming

PROBLEM(S) IT OVERCOMES

limited manipulative ability

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

information not available

FOR SALE

Maddak, Inc.
Pequannock, NJ 07440

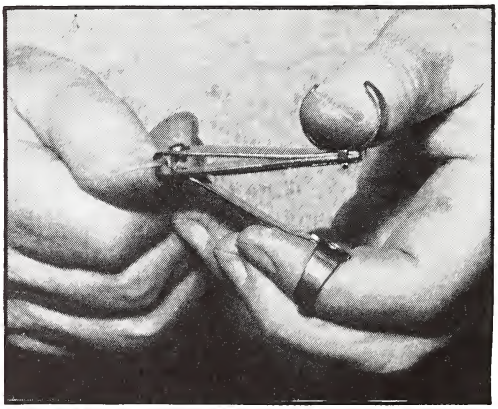
Built-up Grooming Aids $6.00 ea. piece
Nail Brush with Suction Cups $3.90

HOW IT WORKS

The Grooming Aids are cemented into filled bicycle type handles with finger grip knobs. The handles have a pleasant feel since they are of resilient vinyl and are convenient for right or left hand. The Nail Brush with Suction Cups is a nylon bristle brush mounted on 2 suction cups. It has a hard plastic back and mounts on tub, sink or counter top.

(Information based on Maddak Catalog No. 479, 1979.)

Nail Clipper



Finger Fitting Nail Clipper

Photographs courtesy of
Maddak, Inc.

NAIL CLIPPERS

DEVELOPER

Manufactured by:
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

CONTACT PERSON

Fred M. Joslyn
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

WHERE IT IS USED

Cosmetology
Personal Grooming

PROBLEM(S) IT OVERCOMES

limited manipulative ability or finger dexterity

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

information not available

FOR SALE

Maddak, Inc.
Pequannock, NJ 07440

Nail Clipper	$6.90
Finger Fitting Nail Clipper	$2.50

HOW IT WORKS

The Nail Clipper is a standard nail clipper and file attached to a heavy plastic block. Two suction cups hold the block to a table top or other surface. The Finger Fitting Nail Clipper has finger retaining mounts located at the ends of the clipper. The mounts prevent the clipper from dropping, stabilize the grip and help maintain proper position while cutting. Standard nail file is included.

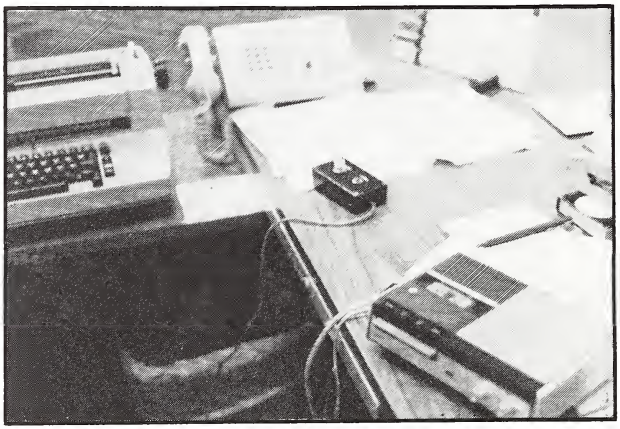
(Information based on Maddak Catalog No. 479, 1979.

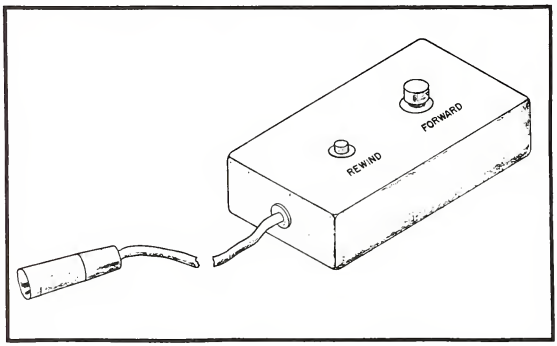
DICTATION

Dictaphone Switch for Use by a Paraplegic 252

Dictation System, Modified 254

Easicorder (REC-1) 256





Photograph and diagram courtesy of John H. Leslie, Jr.

DICTAPHONE SWITCH FOR USE BY A PARAPLEGIC

DEVELOPER

Rehabilitation Engin. Ctr.
2021 North Old Manor
Wichita, KS 67208
(316) 688-1888

CONTACT PERSON

Leonard Anderson
Rehabilitation Engin. Ctr.
2021 North Old Manor
Wichita, KS 67208
(316) 688-1888

WHERE IT IS USED

Dictation

PROBLEM(S) IT OVERCOMES

unable to use foot switch on dictaphone

FIELD TESTED

yes

Center Industries Corporation-Wichita, KS

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

no

HOW IT WORKS

The switch is used to operate a dictaphone through the utilization of a hand control. The function of the foot rocker switch was duplicated using a push to turn on and a push to turn off switch to control the play mode. A single pole double throw momentary push button switch is used to control the rewind mode. These switches are mounted in a small box as shown in the illustrations. The user can operate the dictaphone with either hand and has no problem utilizing the piece of equipment. The new switch is plugged in parallel with the old switch; thus when one desires to use the foot operated rocker switch rather than the hand operated push button switch, one merely unplugs the hand operated switch and proceeds to control the unit with the foot operated switch.

(Information provided by John H. Leslie, Jr., Rehabilitation Engineering Center.)

Photograph courtesy of Don
Warren and Ricardo Cerna

DICTATION SYSTEM, MODIFIED

DEVELOPER

Clinical Convenience Products
Contracting Serv. Dir.
2070 Helena Street
Madison, WI 53704
(608) 251-2882

CONTACT PERSON

Don Warren
2070 Helena Street
Madison, WI 53704
(608) 251-2882

WHERE IT IS USED

Dictation

PROBLEM(S) IT OVERCOMES

limited motor control

FIELD TESTED

yes

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

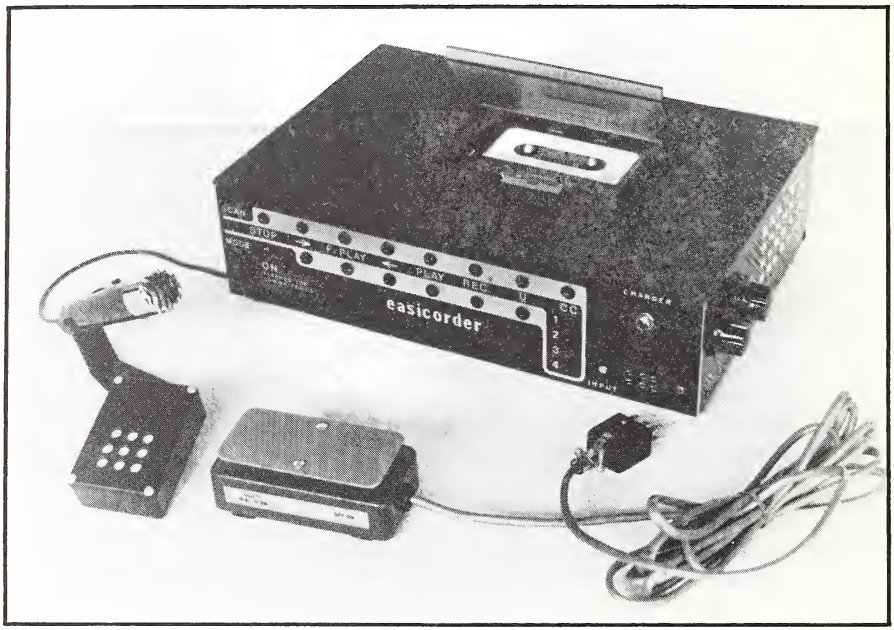
FOR SALE

Clinical Convenience Products
2070 Helena Street
Madison, WI 53704

HOW IT WORKS

Light puff control is utilized for controlling two switches and all functions, (record, play, fast rewind and stop), of the dictation equipment by individuals that require a hands-off operation. The microphone connection is connected directly to the power supply of the recording unit. This eliminates problems with microphone battery life. System can be equipped with capacitance discharge ground-place control for on and off. Alternative switching options available--pneumatic bulb switch, slam switch, photo switch.

(Information provided by Ricardo Cerna, Rehabilitation Engineering Specialist, Wisconsin Division of Vocational Rehabilitation, and Don Warren.)



Photograph courtesy of
Romich, Beery and Bayer,
Inc.

EASICORDER (REC-1)

DEVELOPER

Romich, Beery and Bayer, Inc.
RD 2, Box 191
Shreve, OH 44676
(216) 567-2906

CONTACT PERSON

David Bayer
Romich, Beery and Bayer, Inc.
RD 2, Box 191
Shreve, OH 44676
(216) 567-2906

WHERE IT IS USED

Dictation
Recording

PROBLEM(S) IT OVERCOMES

inability to write

FIELD TESTED

yes

Institute of Rehabilitative Medicine, New York University - NYC

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

Romich, Beery and Bayer, Inc.
RD 2, Box 191
Shreve, OH 44676

$1250

HOW IT WORKS

The Easicorder is a tape recording system intended for use by cerebral palsied and spinal cord injured persons. It can be used for both notetaking and dictation functions. It is operated with a single or dual-acting control switch. A single movement allows the user to select - play, record, fast forward, rewind, fast playback, track changes, and underline modes. The cassette need never be manually flipped.

(Information provided by David M. Bayer, Romich, Beery and Bayer, Inc.)

DUPLICATING AND PRINTING

Electronic Scanning Machine Model No. 1100 260

LED-120 (Line Embossed Device) . . . 262

Model BD-3 (Braille Device) 264

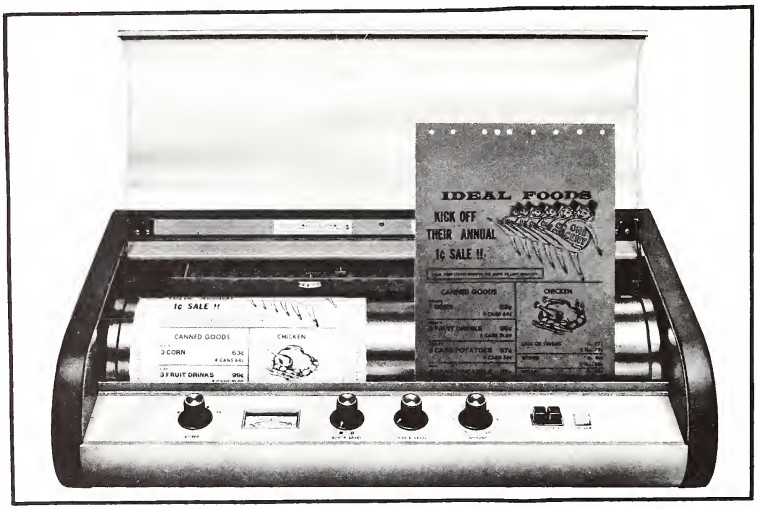
Offset Press Model No. 319 266

Plate Processor Model No. M60 268

Stencil Duplicator Model No. 460s . . 270

Thermoform Brailon[R] Duplicator . . . 272

ELECTRONIC SCANNING MACHINE MODEL NO. 1100



Photograph courtesy of
Gestetner Corporation

ELECTRONIC SCANNING MACHINE MODEL NO. 1100

DEVELOPER

Gestetner Corporation
Gestetner Park
Yonkers, NY 10703
(914) 968-6666

CONTACT PERSON

Joseph Schachner
or Robert Wallace
Gestetner Corporation
Gestetner Park
Yonkers, NY 10703
(914) 968-6666

WHERE IT IS USED

Communication
Duplication
Printing

PROBLEM(S) IT OVERCOMES

limited hand control

FIELD TESTED

yes

Camp Jawonio, Rockland County Center for Physically Handicapped, Inc. - New City, NY

REGULATORY APPROVAL

UL; Canadian Standards Association

WARRANTY PROVIDED

yes

FOR SALE

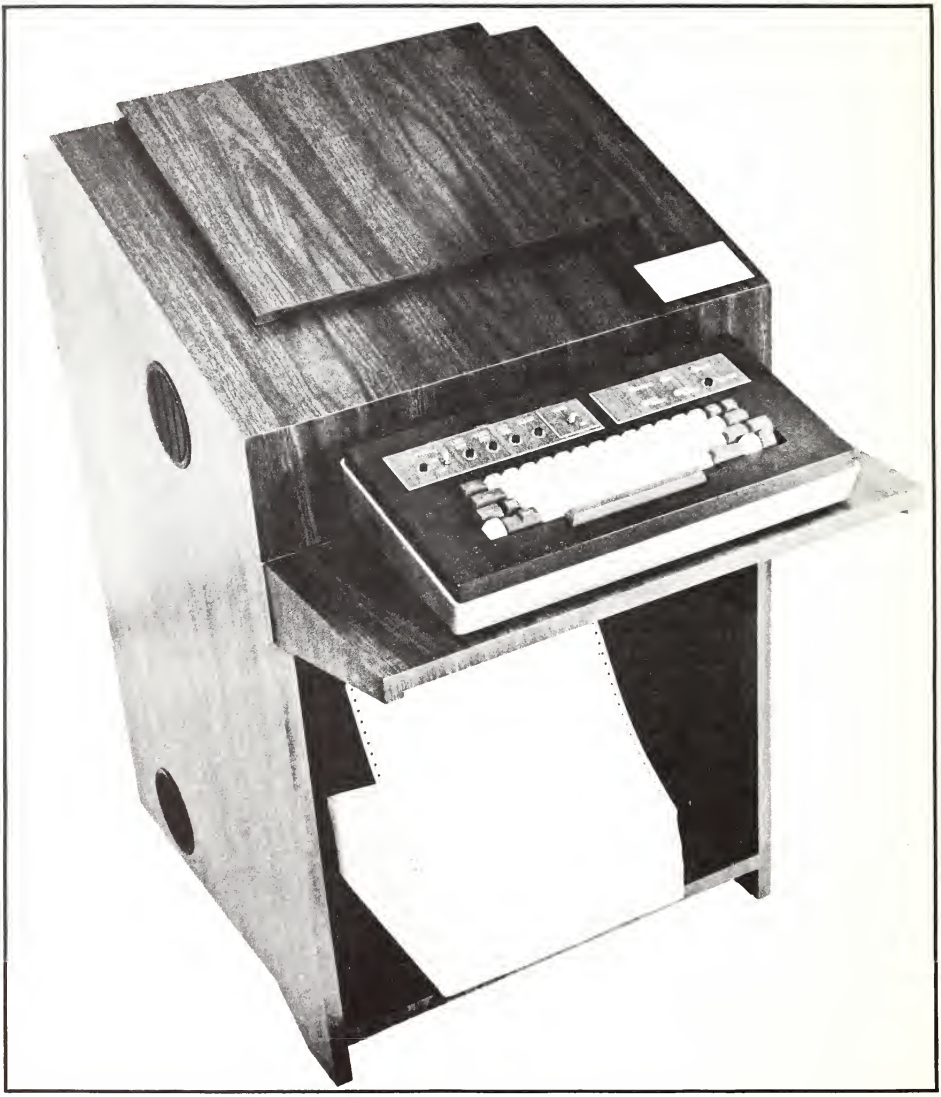
Gestetner Corporation
Gestetner Park
Yonkers, NY 10703

1100 Electronic Scanning Machine	$2300
Plus Modification	$ 35
Stand (Optional)	$ 100

HOW IT WORKS

This type of electronic stencil imager involves push button operations. Dial adjustments may be necessary to change density and color separation. The original is placed around one cylinder and a blank stencil master is attached to the companion cylinder.
Other printing equipment and supplies are available from this company.

(Information based on product brochure.)



Photograph courtesy of Triformation Systems

LED-120 (LINE EMBOSSED DEVICE)

DEVELOPER

Trifomation Systems
3132 S.E. Jay Street
Stuart, FL 33494
(305) 283-4817

CONTACT PERSON

Guy Carbonneau, President
Trifomation Systems
3132 S.E. Jay Street
Stuart, FL 33494
(305) 283-4817

WHERE IT IS USED

Braille Printing
Wherever a standard computer terminal is used (Business, Banking, Airlines, etc.)

PROBLEM(S) IT OVERCOMES

visual impairment; inability to read computer printout

FIELD TESTED

yes

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

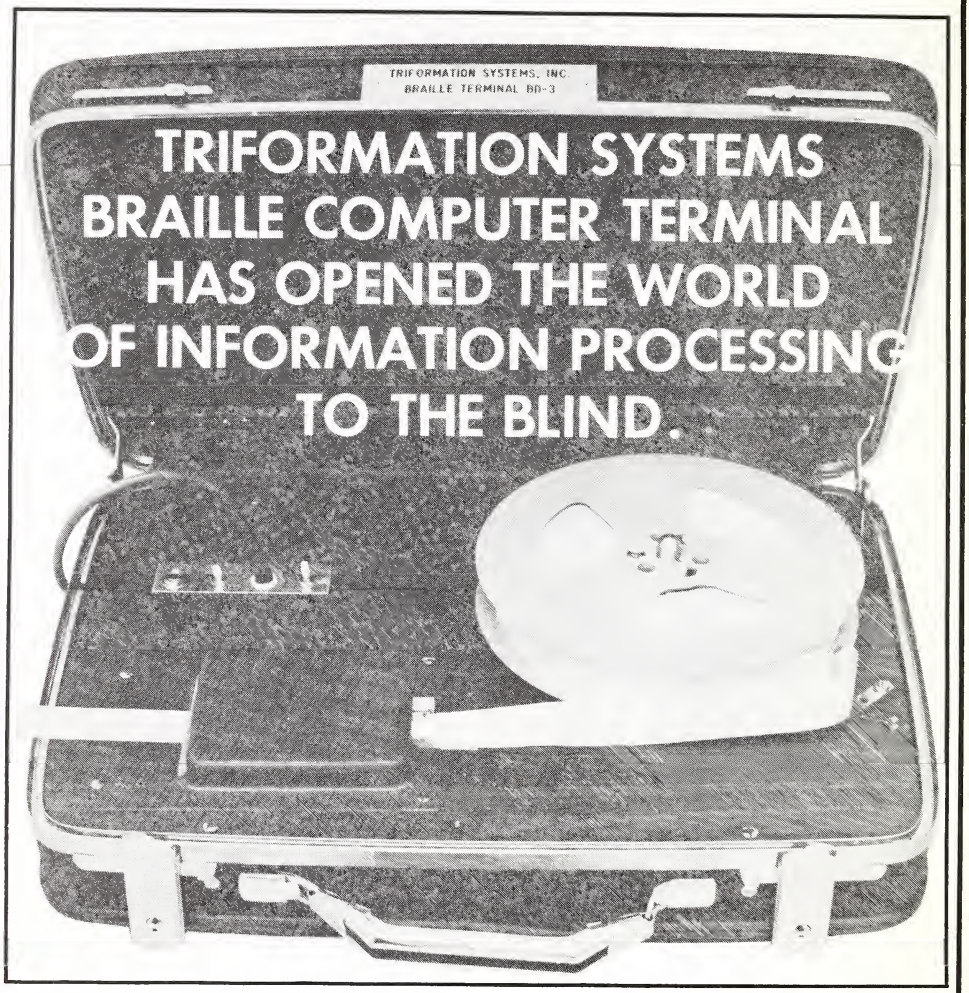
Trifomation Systems
3132 S.E. Jay Street
Stuart, FL 33494

As of 1/1/78
$14,500.00 - LED-120
$ 7,400.00 - LED-15

HOW IT WORKS

The LED-120 unit is a buffered, computer terminal that prints in braille. It prints forty character braille lines on fanfold, continuous form paper at 180 lines per minute, and operates at any speed up to 120 C.P.S. (characters per second).
When used as a high speed braille printer, it can produce braille from a keyboard, from a computer, from magnetic cassettes or from almost any source of coded information.
Many miscellaneous equipment options such as a transparent switch that allows all control characters to be embossed are available with the LED-120.
There is also a less expensive model available, the LED-15, with an operating speed up to 15 C.P.S. Several equipment, installation and training options are available for the LED-15 and the LED-120 models.

(Information based on Trifomation Systems product literature.)



Photograph courtesy of Triformation Systems

MODEL BD-3 (BRAILLE DEVICE)

DEVELOPER

Trifomation Systems
3132 S.E. Jay Street
Stuart, FL 33494
(305) 283-4817

CONTACT PERSON

Guy Carbonneau, President
Trifomation Systems
3132 S.E. Jay Street
Stuart, FL 33494
(305) 283-4817

WHERE IT IS USED

Braille Printing

PROBLEM(S) IT OVERCOMES

visual impairment; need to have information in braille form

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

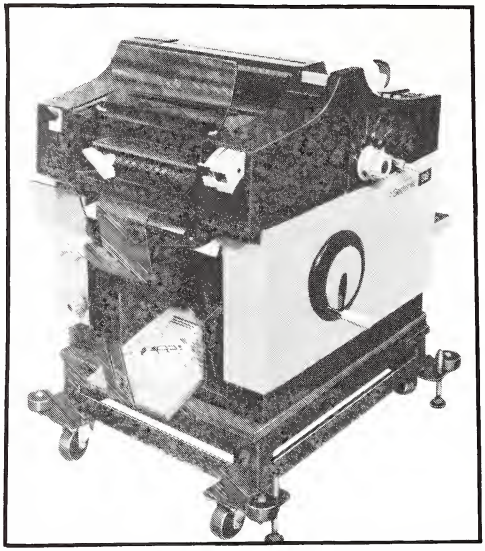
Trifomation Systems
3132 S.E. Jay Street
Stuart, FL 33494

As of 1/1/80
$1,950.00

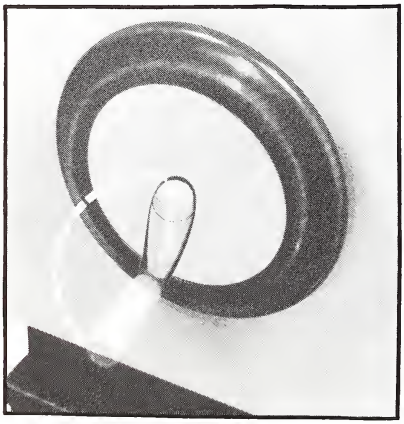
HOW IT WORKS

The BD-3 is a portable unit which produces braille when used in conjunction with a keyboard, digital equipment, a computer, or almost anything that uses coded information. The portable braille computer terminal embosses at the rate of 120 - 180 words per minute on a continuous strip of paper tape. The operator can read what has been typed as well as the messages that come back. Several equipment, installation and training options are available.

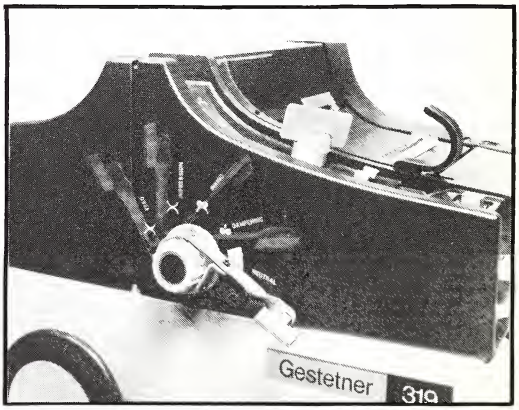
(Information based on Triformation Systems product literature.)



Offset Press



Retractable Handle



Lever Control

Photograph courtesy of
Gestetner Corporation

OFFSET PRESS MODEL NO. 319

DEVELOPER

Gestetner Corporation
Gestetner Park
Yonkers, NY 10703
(914) 968-6666

CONTACT PERSON

Joseph Schachner
or Robert Wallace
Gestetner Corporation
Gestetner Park
Yonkers, NY 10703
(914) 968-6666

WHERE IT IS USED

Communication
Duplication
Printing

PROBLEM(S) IT OVERCOMES

limited hand control

FIELD TESTED

yes

Camp Jawonio, Rockland County Center for Physically Handicapped, Inc. - New City, NY

REGULATORY APPROVAL

UL; Canadian Standards Association

WARRANTY PROVIDED

yes

FOR SALE

Gestetner Corporation
Gestetner Park
Yonkers, NY 10703

319 Offset Duplicator	$7050
319 Cabinet	$ 295

HOW IT WORKS

This Offset Duplicator has controls that have been designed for easy operation. Some of the special features are as follows:

-Levers instead of full-grasp controls are easier to use.

-A fold-away crank handle makes the large control wheel of the cylinder mechanism easier to manipulate.

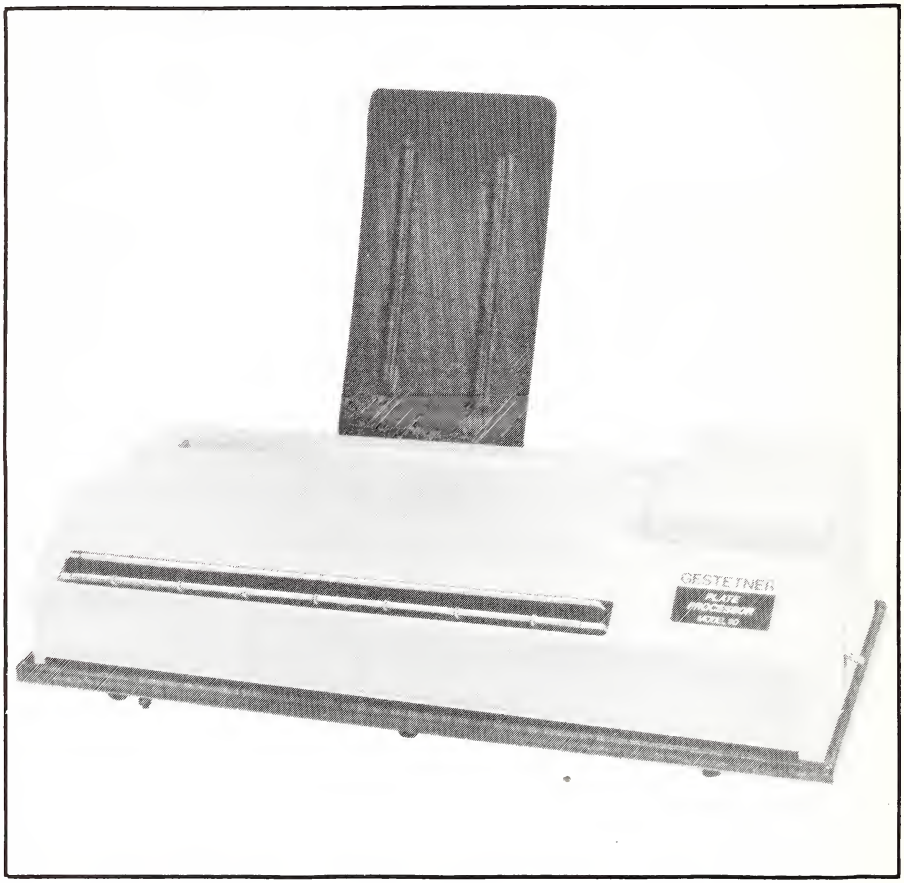
-Twist-type knobs are equipped with special extensions that permit them to be more easily turned. The covers and lids are equipped with large plastic hooks for easy handling.

-Manipulation of the cylinder wheel will allow the plate to attach itself to the cylinder and will also eject itself after the run is completed. Even the printing blanket will be automatically washed and the power shut off at the completion of all necessary operations.

-A 'read-out' panel which shows the progress of the duplicating process with illuminated symbols.

Other printing equipment and supplies are available from this company.

(Information based on product brochures.)



Photograph courtesy of
Gestetner Corporation

PLATE PROCESSOR MODEL NO. M60

DEVELOPER

Gestetner Corporation
Gestetner Park
Yonkers, NY 10703
(914) 968-6666

CONTACT PERSON

Joseph Schachner
Robert Wallace
Gestetner Corporation
Gestetner Park
Yonkers, NY 10703
(914) 968-6666

WHERE IT IS USED

Communication
Duplication
Printing

PROBLEM(S) IT OVERCOMES

limited hand control

FIELD TESTED

yes

Camp Jawonio, Rockland County Center for Physically Handicapped, Inc. - New City, NY

REGULATORY APPROVAL

UL; Canadian Standards Association

WARRANTY PROVIDED

yes

FOR SALE

Gestetner Corporation
Gestetner Park
Yonkers, NY 10703

$445

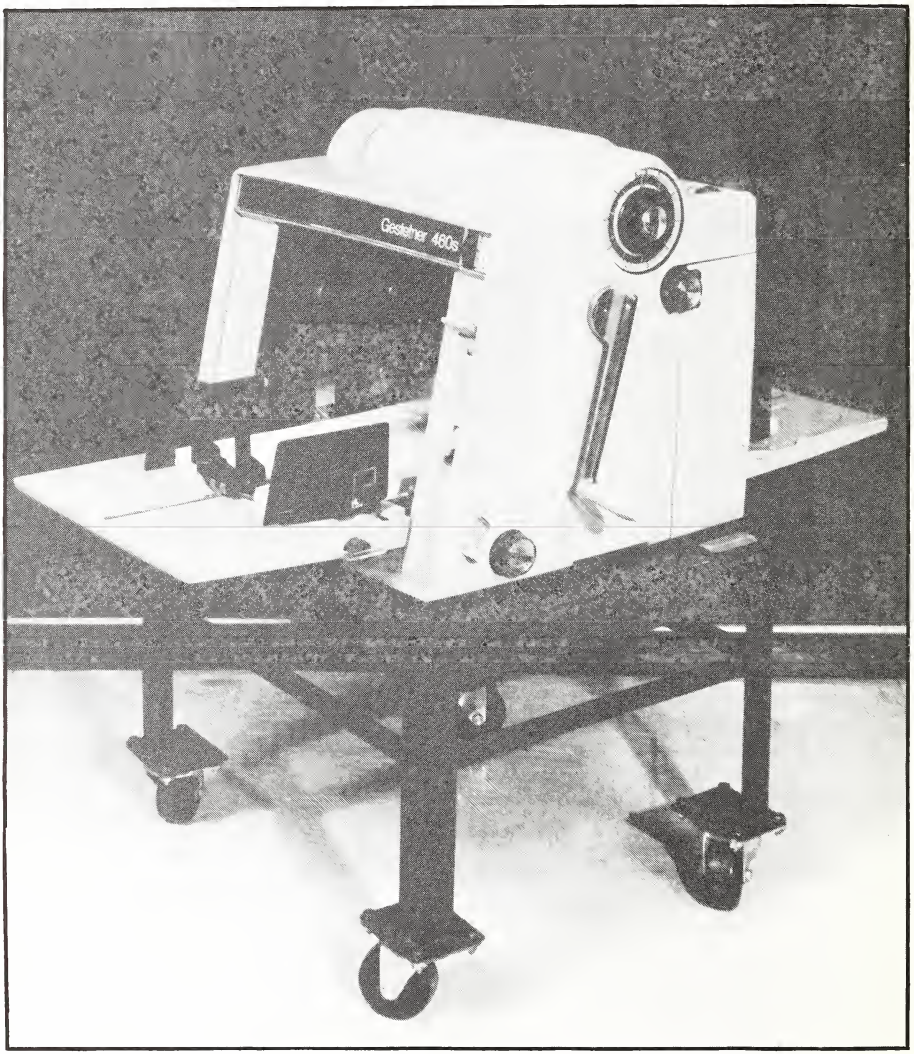
HOW IT WORKS

Single on-off switch operates the machine to process offset plates automatically. Pressure on rollers can be adjusted to maintain perfect, even contact.

Other printing equipment and supplies are available from this company.

(Information based on product brochures.)

STENCIL DUPLICATOR MODEL NO. 460s



Photograph courtesy of
Gestetner Corporation

STENCIL DUPLICATOR MODEL NO. 460's

DEVELOPER

Gestetner Corporation
Gestetner Park
Yonkers, NY 10703
(914) 968-6666

CONTACT PERSON

Joseph Schachner
or Robert Wallace
Gestetner Corporation
Gestetner Park
Yonkers, NY 10703
(914) 968-6666

WHERE IT IS USED

Communication
Duplication
Printing

PROBLEM(S) IT OVERCOMES

limited hand control

FIELD TESTED

yes

Camp Jawonio, Rockland County Center for Physically Handicapped, Inc. - New City, NY

REGULATORY APPROVAL

UL; Canadian Standards Association

WARRANTY PROVIDED

yes

FOR SALE

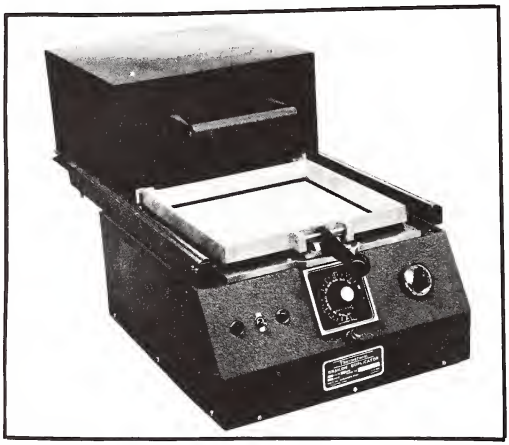
Gestetner Corporation
Gestetner Park
Yonkers, NY 10703

460's Stencil Duplicator	$2238.35
Plus Modification	$ 162.00
Stand (Optional)	$ 75.00

HOW IT WORKS

Push button and dial adjustments are all that is needed to produce duplicated materials. The stencils are loaded by applying the stencil head to the fastening studs and by turning a handle stencils are in place. Other printing equipment and supplies are available from this company.

(Information based on product brochures.)



Photograph courtesy of
American Thermoform
Corporation

THERMOFORM BRAILON[R] DUPLICATOR

DEVELOPER

American Thermoform Corporation
8640 East Slauson Avenue
Pico Rivera, CA 90660

CONTACT PERSON

B. Hersh
8640 East Slauson Avenue
Pico Rivera, CA 90660
(213) 723-9021

WHERE IT IS USED

Reproduction of braille and embossed material

PROBLEM(S) IT OVERCOMES

copying braille material

FIELD TESTED

yes

in operation since 1961

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

American Thermoform Corporation
8640 East Slauson Avenue
Pico Rivera, CA 90660

duplicator $1240.00

F.O.B. Pico Rivera, CA

HOW IT WORKS

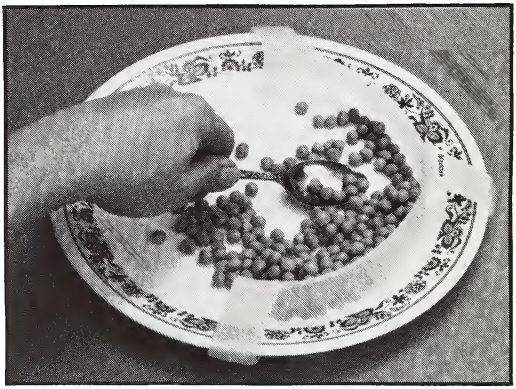
The machine plugs into a standard 115 volt, 60Hz outlet and needs 10 minutes to warm up. To copy material, the original is placed on the machine's platen with raised impression side up. A sheet of Brailon[R], (a paper-like plastic developed for use with this duplicator), is placed over the original and secured in place by the clamping frame. The heating oven is then pulled forward over the material to be copied, starting the automatic timer. In three to four seconds the vacuum pump starts automatically and the pump indicator light is illuminated. The oven is then pushed back to the rear position. The clamping frame is raised and the Brailon[R] copy removed. Pressing the timer shut-off button stops the pump.

(Information based on American Thermoform Corporation literature.)

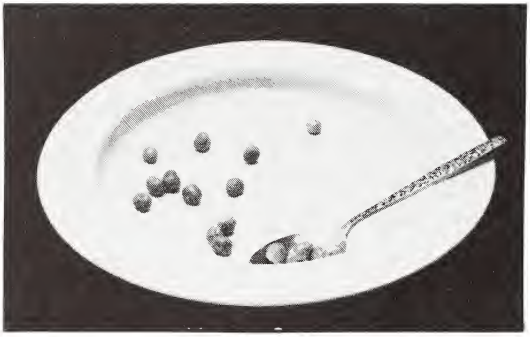
EATING

Plates and Cups 276

Utensils 278



Food Bumper



Inner-Lip Plate

Plastic Cup Handle

Photographs courtesy of Maddak, Inc.

DEVELOPER

Manufactured by:
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

CONTACT PERSON

Fred M. Joslyn
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

WHERE IT IS USED

Eating
Personal Use

PROBLEM(S) IT OVERCOMES

limited manipulative ability; loss of one hand

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

information not available

FOR SALE

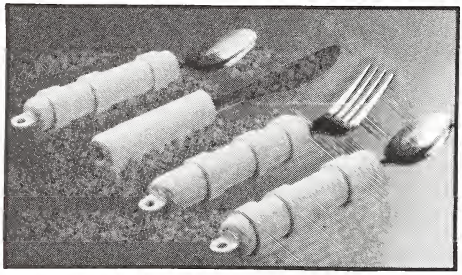
Maddak, Inc.
Pequannock, NJ 07440

Food Bumper	$ 3.00
Inner-Lip Plate	$ 3.25
Plastic Cup Handle	$15.00

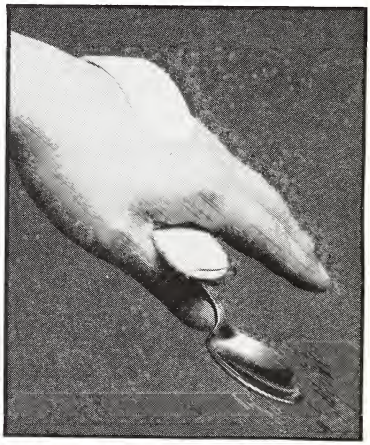
HOW IT WORKS

The Food Bumper is a curved rail designed to keep food from sliding off the plate - even when eating with only one hand. It is made of autoclavable polypropylene with strong clips of the same material. Fits plates 9" to 11" in diameter. The Inner-Lip Plate is designed as an aid to self-feeding. The deep inner-lip prevents spills and makes eating more enjoyable. The plate is molded of smooth, durable polypropylene and is light weight, easy to clean and dishwasher safe. The Plastic Cup Handle is a strong plastic handle in 2 parts with plated metal rivet and screw for tightening onto standard cup handle. It provides a 3½" handle extension for easy grip.

(Information based on Maddak Catalog No. 479, 1979)



Adjustable, Easy Grip, Built-Up Handle Cuttlery



Plastic Utensil Hand Clip

Self-Leveling Swivel Utensils

Photographs courtesy of Maddak, Inc.

DEVELOPER

Manufactured by:
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

CONTACT PERSON

Fred M. Joslyn
Maddak, Inc.
Pequannock, NJ 07440
(001) 694-0500

WHERE IT IS USED

Eating

PROBLEM(S) IT OVERCOMES

difficulty in grasping

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

information not available

FOR SALE

Maddak, Inc.
Pequannock, NJ 07440

Built-up Handle Cuttlery (complete set)	$14.95
Utensil Hand Clip	$ 3.00
Swivel Utensils	$ 6.90

HOW IT WORKS

The Adjustable, Easy Grip, Built-Up Handle Cuttlery are stainless steel utensils with secure lock-in handles. Two additional sizes of sleeves to increase the diameter of the handle are available. Handle is supplied with 3 movable grip rings to provide support against individual fingers. The Plastic Utensil Hand Clip fits the hand and holds a spoon or fork securely. The Self-Leveling Swivel Utensils are mounted in bicycle-type soft vinyl handles with hard plastic centers. The L shaped utensil handles are mounted on a central swivel pin which permits the utensil to remain level even though the handle is rotated through an arc of up to 60°. Double stops prevent excessive rotation or swing. Can be used with either right or left hand.

(Information based on Maddak Catalog No. 479, 1979.)

EDUCATION

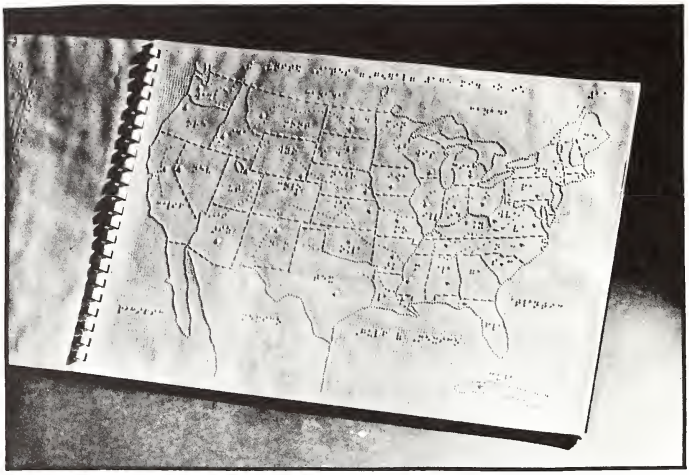
Braille Atlases and Maps 282

Embossed and Bold-Line Graph Sheets . 284

Portable Magnetic Graphics Display Board 286

Vis-I-Con 288

Voxcom® Slow-Speed Card Reader and Cassette Recorder 290



Photographs courtesy of
American Printing House
for the Blind

BRAILLE ATLASES AND MAPS

DEVELOPER

Manufactured by:
American Printing House
for the Blind
1839 Frankfort Avenue
Louisyille, KY 40206

CONTACT PERSON

Ralph E. McCracken
American Printing House
for the Blind
1839 Frankfort Avenue
Louisville, KY 40206
(502) 895-2405

WHERE IT IS USED

Education

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

U.S. Department of Health, Education and Welfare

WARRANTY PROVIDED

information not available

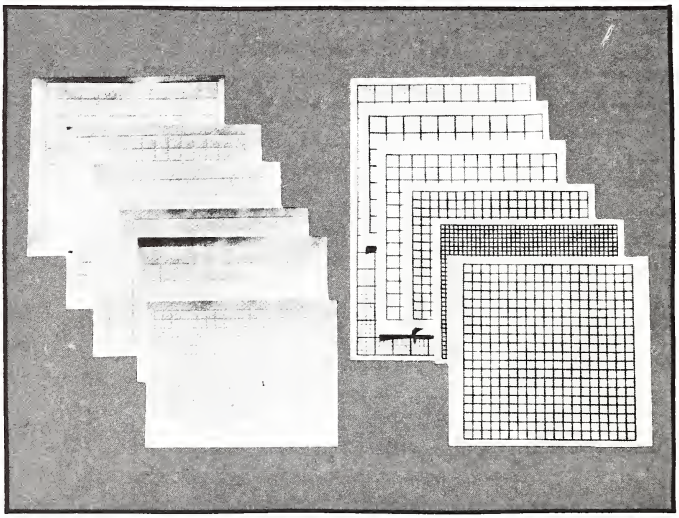
FOR SALE

American Printing House for the Blind
1839 Frankfort Avenue
Louisville, KY 40206

HOW IT WORKS

Various atlases and keys of the continents are available in braille on extra heavy white paper, size 17"x13". The pages are bound by plastic rings in pressboard covers. Also available are numerous maps and globes of the United States, continents, individual states, etc.

(Information based on American Printing House for the Blind literature.)



Photograph courtesy of
American Printing for the
Blind

EMBOSSED AND BOLD-LINE GRAPH SHEETS

DEVELOPER

Manufactured by:
American Printing House
for the Blind
1839 Frankfort Avenue
Louisville, KY 40206

CONTACT PERSON

Ralph E. McCracken
American Printing House
for the Blind
1839 Frankfort Avenue
Louisville, KY 40206
(502) 895-2405

WHERE IT IS USED

Education

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

U.S. Department of Health, Education and Welfare

WARRANTY PROVIDED

information not available

FOR SALE

American Printing House for the Blind
1839 Frankfort Avenue
Louisville, KY 40206

Price ranges from $1.25 to $1.75 for one package.

HOW IT WORKS

The Embossed Graph Sheets are standard 100 lb. manila sheets embossed with horizontal and vertical lines of small braille dots. Coordinate axes are represented as solid lines. They are available in two sheet sizes - 8½"x11" and 11½"x11". Three different line spacings of ½", 3/4" and 1" are provided in each sheet size. The Bold-Line Graph Sheets are designed for use by the partially sighted. Major unit lines are .03" wide and subunit lines are .015" wide. The sheets are available in three sizes - 8½"x11", 11½"x11 and 17"x11". In addition to these regular graph sheets, polar graph sheets showing 3 concentric circles with 1" spacing plus coordinate axes, are available.

(Information based on American Printing House for the Blind literature.)

Photograph not available

PORTABLE MAGNETIC GRAPHICS DISPLAY BOARD

DEVELOPER

Clinical Convenience Products
Contracting Serv. Div.
2070 Helena Street
Madison, WI 53704
(608) 251-2882

CONTACT PERSON

Don Warren
2070 Helena Street
Madison, WI 53704

WHERE IT IS USED

Presenting and interpreting data graphically

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

yes

unit being used by person it was designed for - instructor-professor

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

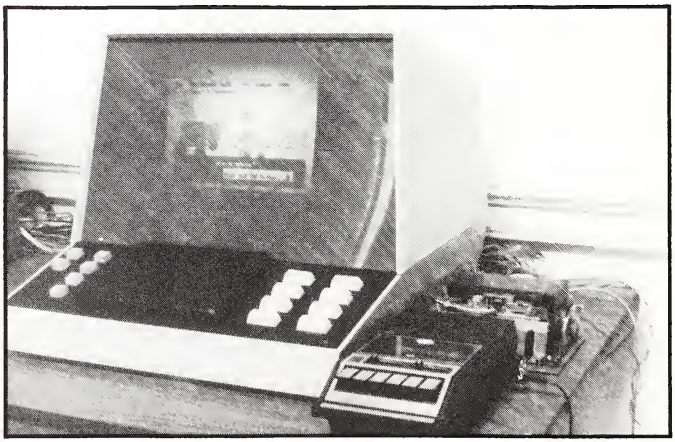
Clinical Convenience Products
2070 Helena Street
Madison, WI 53704

Price depends on size and configuration.

HOW IT WORKS

A 28" by 30" sheet of 20 gauge sheet metal was used to create a grid design using raised cells. Vertical and horizontal lines were drawn on the sheet to form a grid of one inch squares. The lines were then dented with a hammer and chisel to form raised ridges on the reverse side of the sheet metal. Every fifth line, both horizontal and vertical was made larger to allow for easier tactile identification. The side with the raised ridges of the grid was further accented by covering the raised lines with masking tape and spraying the metal surface with green chalkboard paint. The tape was then removed. The result was a green chalkboard with a one inch square grid pattern which was both visible and tactual. Magnetic rope, which is available commercially in either round or rectangular shapes, can be used to create graphs and intersecting curves. The rope can be broken to the desired length by hand, and can be shaped by hand to form curves or other desired shapes.

(Information provided by Ricardo Cerna, Rehabilitation Engineering Specialist, Wisconsin Division of Vocational Rehabilitation, and Don Warren.)



Photographs courtesy of
Raymond G. Fox, Learning
Technical Institute

VIS-I-CON

DEVELOPER

Raymond G. Fox
Learning Technology
Institute
50 Culpeper Street
Warrenton, VA 22186
(703) 347-0055

CONTACT PERSON

Same As Developer

WHERE IT IS USED

Communication
Education
Reading

PROBLEM(S) IT OVERCOMES

hearing impairment

FIELD TESTED

no

REGULATORY APPROVAL

no

WARRANTY PROVIDED

no

FOR SALE

Learning Technology Institute
50 Culpeper Street
Warrenton, VA 22186

$2500 - $3500 depending upon quantity

HOW IT WORKS

The Vis-I-Con is a programmable micro-processor controlled interactive media-based instruction delivery system using super-8 film cassettes and addressable audio tape messages. It is designed to make available to deaf and hearing impaired learners delivery of a wide range of validated media-based instructional materials. The system consists of a frame addressable super 8 cassette, a rear screen projector, a programmable read-only memory for program instruction control and a micro-processor. The unit can function on a stand alone basis as an instruction delivery machine, as a computer terminal with bidirectional information transfer capability, or as a host system which can operate peripheral devices.

(Information provided by Raymond G. Fox, Learning Technology Institute.)

Photograph courtesy of Voxcom

VOXCOM® SLOW-SPEED CARD READER AND CASSETTE RECORDER

DEVELOPER

VOXCOM
Division of Tapecon, Inc.
100 Clover Green
Peachtree City, GA 30269
(404) 487-7575

CONTACT PERSON

Bonnie Pray
VOXCOM
100 Clover Green
Peachtree City, GA 30269
(404) 487-7575

WHERE IT IS USED

Reading
Teaching

PROBLEM(S) IT OVERCOMES

difficulty in reading; difficulty retaining information

FIELD TESTED

yes

in schools around the world

REGULATORY APPROVAL

no

WARRANTY PROVIDED

yes

FOR SALE

VOXCOM
Division of Tapecon, Inc.
100 Clover Green
Peachtree City, GA 30269

or call for location of nearest dealer

HOW IT WORKS

Information can be simultaneously seen, read and heard with this unit. An adhesive-backed magnetic tape is applied to the back of any piece of paper, (e.g. the back of a photo). Information is recorded onto the magnetic tape and then played using the slow speed card reader adapter. By removing the adapter, the unit can be used as an ordinary cassette recorder. It can be used to teach math concepts, give machine operating instructions and for other similar applications.
One of the VOXCOM models has color-coded extender keys with braille and tactile markings for record, play and stop.

(Information based on VOXCOM catalog, 1980.)

ELECTRONICS

Aud-A-Simpson 294

Aud-A-Zilch 296

Impedance Bridge 298

Speech Adapters for Electronic Test Equipment 300

Talking Voltmeter 302

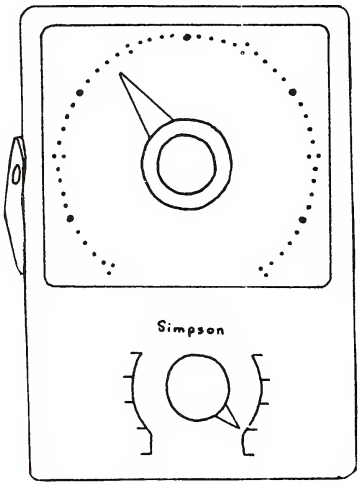


Illustration courtesy of
Science for the Blind
Products

DEVELOPER

CONTACT PERSON

Tom Benham
Science for the Blind
Products
Box 385
Wayne, PA 19087
(215) 687-3731

WHERE IT IS USED

Lab Work
Technical Work

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

Science for the Blind Products
Box 385
Wayne, PA 19087

$155.00

HOW IT WORKS

The Aud-A-Simpson is a commercially available volt-ohm millimeter used for testing electronic equipment under repair or in student labs and in professional and amateur technical work. It measures DC and AC voltage, DC resistance and current, and the AC output of electronic equipment. As adapted by Science for the Blind, it has a braille scale and audio circuit in place of the meter, and a reading is obtained by turning the knob for a null. The meter comes complete with clip leads, a resistance conversion chart and an instruction booklet.

(Information based on Science for the Blind literature.)

Photograph not available

AUD-A-ZILCH

DEVELOPER

CONTACT PERSON

Tom Benham
Science for the Blind
Products
Box 385
Wayne, PA 19087
(215) 687-3731

WHERE IT IS USED

Electronics
Lab Work

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

Science for the Blind Products
Box 385
Wayne, PA 19087

$40.00

HOW IT WORKS

The Aud-A-Zilch is used to locate null (balance) setting for DC instruments such as the Impedance Bridge (p. 298), potentiometer, or other instruments with a zero balance point. It can also be used as an amplifier for balancing AC circuits or for trouble shooting in audio equipment or monitoring an SC signal.

(Information based on Science for the Blind literature.)

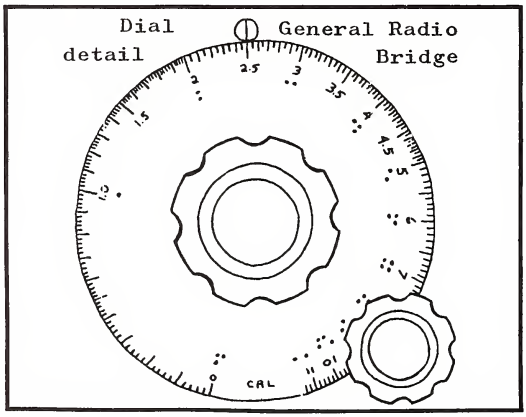


Illustration courtesy of
Science for the Blind
Products

IMPEDANCE BRIDGE

DEVELOPER

CONTACT PERSON

Tom Benham
Science for the Blind
Products
Box 385
Wayne, PA 19087
(215) 687-3731

WHERE IT IS USED

Lab Work
Technical Work

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

Science for the Blind Products
Box 385
Wayne, PA 19087

$550.00

HOW IT WORKS

This device is used for measurement of components or repair of electronic equipment in student laboratories and professional technical work. It measures AC/DC resistance, inductance, capacitance, figure of merit Q of coil, and dissipation Factor D of capacitor. Accuracy: R 3%, C 3%, L 10%, D 20%, Q 20%. Cassette instructions included. Custom order item.

(Information based on Science for the Blind literature.)

Photograph not available

SPEECH ADAPTERS FOR ELECTRONIC TEST EQUIPMENT

DEVELOPER

Sensory Interface Equipment, Inc.
4442 Kasson Road
Syracuse, NY 13215
(315) 469-7182

CONTACT PERSON

Larry Waldron
Sensory Interface Equipment, Inc.
4442 Kasson Road
Syracuse, NY 13215
(315) 469-7182

WHERE IT IS USED

Electronics

PROBLEM(S) IT OVERCOMES

inability to see test equipment

FIELD TESTED

yes

Library of Congress - Washington, DC

REGULATORY APPROVAL

no

WARRANTY PROVIDED

yes

FOR SALE

Sensory Interface Equipment, Inc.
4442 Kasson Road
Syracuse, NY 13215

$945.00 The instrument to be modified can either be supplied by the purchaser or by SIE at current retail price.

HOW IT WORKS

Electronic test equipment has been adapted to provide speech in place of a visual reading. These are speech adaptations of a Digital Frequency Counter and a Digital Multimeter. These adapters can provide a variety of operating options such as: continuous speech, speech on demand, speech on reading change only, speech suppressed while reading is at 1, and a peak reading saving capability (peak reading can be spoken or cleared when desired). A Telesensory Systems speech board is used to provide clear and understandable spelled speech. Special adapters can be made for just about any device that has a digital output available. This includes devices with IEEE-488 (HP-IB) interface bus connections. The frequency counter is based on a B&K model 1801 counter. It covers 20hz to 40 mhz and is autoranging. It has excellent input sensitivity and is easy to use. The digital multimeter uses a FLUKE model 8020A DMM providing a good selection of volt, ohm, current, and conductance ranges with 0.1% accuracy. A variety of accessories including RF measurement, temperature measurement, high voltage and high current adapters are available.

(Information provided by Larry Waldron.)

TALKING VOLTMETER

Photograph not available

TALKING VOLTMETER

DEVELOPER

Sensory Interface Equipment, Inc.
4442 Kasson Road
Syracuse, NY 13215
(315) 469-7182

CONTACT PERSON

Larry Waldron
Sensory Interface Equipment, Inc.
4442 Kasson Road
Syracuse, NY 13215
(315) 469-7182

WHERE IT IS USED

Electronics

PROBLEM(S) IT OVERCOMES

inability to see voltmeter indicators

FIELD TESTED

yes

St. Mary's Junior College - Minneapolis, MN

REGULATORY APPROVAL

no

WARRANTY PROVIDED

yes

FOR SALE

Sensory Interface Equipment, Inc.
4442 Kasson Road
Syracuse, NY 13215

$900.00

HOW IT WORKS

The talking voltmeter provides spoken output for a DC voltage input. It can be used to monitor an existing meter or a varying voltage. The unit is more accurate and easier to use than a nulling bridge type adapter. It has been used as an audible VU meter for audio levels and a readout on a diathermy machine for sightless technicians. The spoken output is from 0 to 199 corresponding to inputs of 0 to maximum. The input sensitivity for full scale can be set between 0.199 and 19.9 volts. Overrange alarms can be set at 125, 150 or 175 percent. The operator controls provide a variety of operating modes. Spoken output can be continuous or on demand. The unit can speak a reading once and then will be silent until the reading changes. An audible tone output is available that follows the input voltage (at 10 readings a second) allowing the meter to be used as a tuning indicator on rapidly varying voltages. The tone is digitally derived and is logarithmic, making changes easy to detect at both top and bottom of the range. The unit also has a PEAK memory that constantly monitors the input and records the highest value. It can be interrogated at any time and can be cleared to watch for the new peak. The unit is in a metal enclosure 10" wide by 8" deep by 3" high. The AC line input is well filtered. The DC measuring input is filtered for 60 decibels rejection at 60 Hertz.

(Information provided by Larry Waldron.)

ENVIRONMENTAL CONTROL

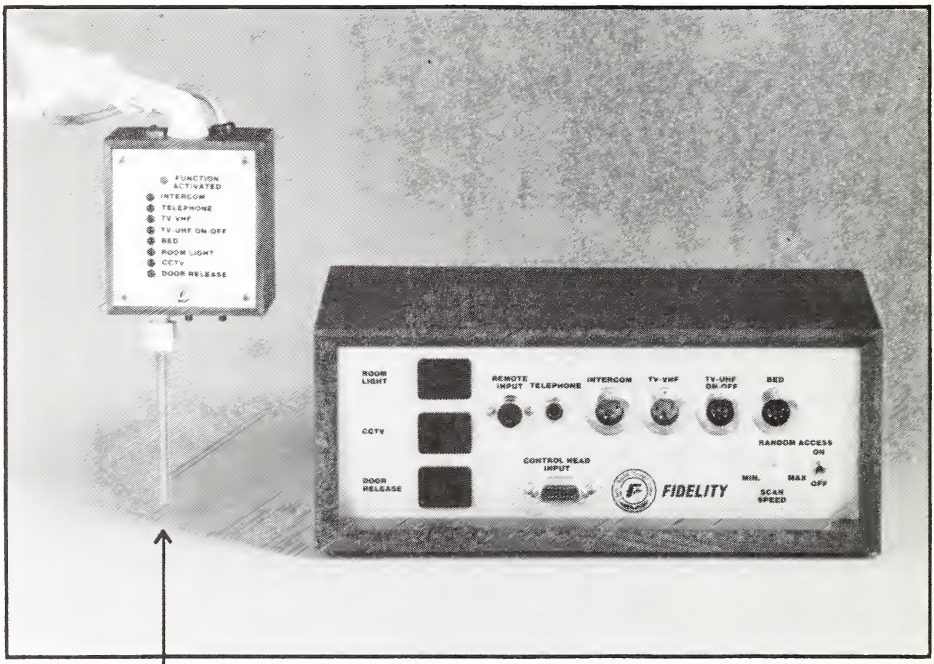
Comfort and Communication Control Systems 306

Du-It Wheelchair Control Systems 308

Environmental Control P.S.U. 4 310

Possum™ Input Controls 312

Visual Doorbell/Phone Signal 314



Random Access Control

Photograph courtesy of
Fidelity Electronics, Ltd.

COMFORT AND COMMUNICATION CONTROL SYSTEMS

DEVELOPER

Northwestern University
Rehabilitation Engineering Program
Evanston, IL 60201

CONTACT PERSON

Fidelity Electronics, Ltd.
8800 N.W. 36th Street
Miami, FL 33178
(305) 888-1000

WHERE IT IS USED

Communication
Independent Living

PROBLEM(S) IT OVERCOMES

some of the problems of communication and independent living experienced by severely disabled persons

FIELD TESTED

yes

Veterans Administration facilities

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

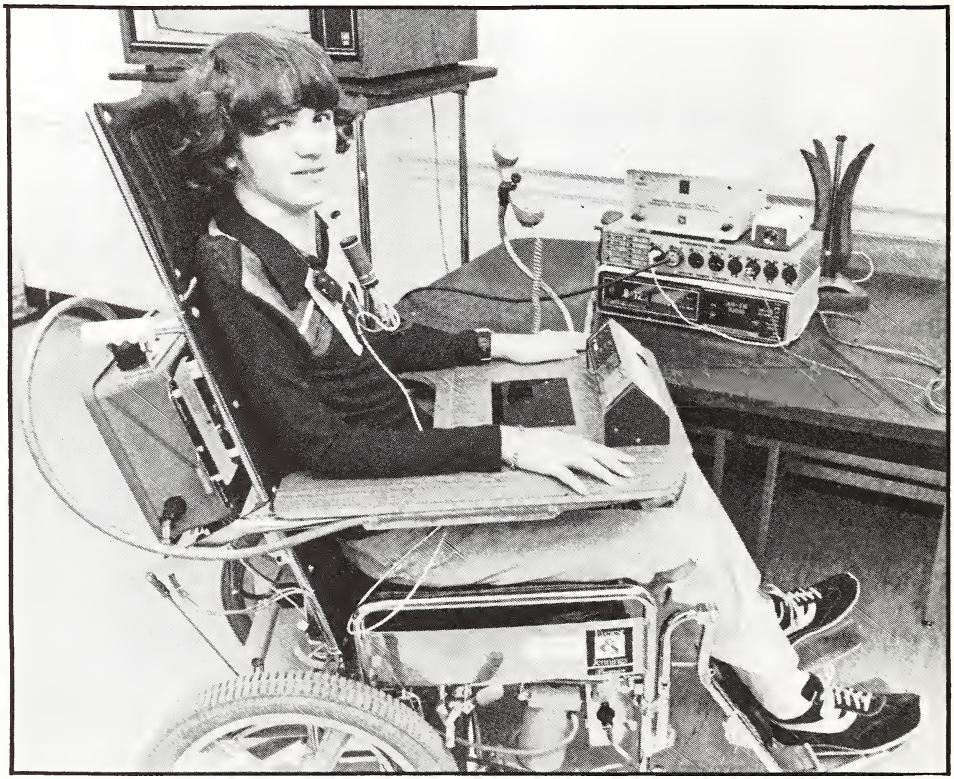
Fidelity Electronics, Ltd.
8800 N.W. 36th Street
Miami, FL 33178

$1,495.00

HOW IT WORKS

This system is an eight-function, electronic control for severely handicapped persons. It provides access to and use of a telephone, control of a television set or radio, control of room lights, and other functions. Selection of a function is achieved by a puff on the tube attached to the control head. Activation of the function is achieved by a sip on the same tube. For example, after selecting the television function by a puff, the desired channel would be selected by a sip. Selection of function may be further simplified through the use of the Random Access Control. When placed in the "ON" position this control will cause a continuing rotation of the light-emitting diodes on the display panel of the control head. When the desired function is lit, a sip on the control tube will activate that function. Upon activation of the function, rotation will be resumed and other functions may be activated. Speed of rotation may be varied. Installation of the Fidelity Comfort and Communication Control System is simple and requires no special tools or equipment. The unit is compact and requires little space. The power unit may be placed under a bed or table. The solid-state, modular construction of the unit permits tailoring of the control features to the desires and needs of the individual.

(Information based on company literature.)



Photograph courtesy of
Romich, Berry and Bayer,
Inc.

DU-IT WHEELCHAIR CONTROLS SYSTEMS

DEVELOPER

Romich, Berry and Bayer, Inc.
RD 2, Box 191
Shreve, OH 44676
(216) 567-2906

CONTACT PERSON

David Bayer
Dick Beery
Romich, Beery and Bayer, Inc.
RD 2, Box 191
Shreve, OH 44676
(216) 567-2906

WHERE IT IS USED

General Use
Operate other systems

PROBLEM(S) IT OVERCOMES

limited movement control

FIELD TESTED

yes

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

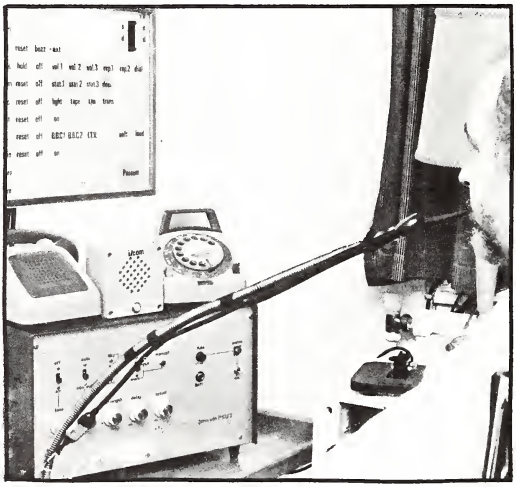
Romich, Beery and Bayer, Inc.
RD 2, Box 191
Shreve, OH 44676

$1000-$4000

HOW IT WORKS

Used with conventionally powered wheelchairs, the DU-IT wheelchair control systems are designed to provide effective wheelchair control schemes for persons who have a high level spinal cord injury, where few physical movements remain but fine motor control is intact, and for persons who have severe cerebral palsy where gross, imprecise, spastic (though repeatable) movements are available. There is a SCI and a CP class of wheelchair control systems. There is a choice of input devices for controlling these systems, e.g. chin, joystick, armslot, puff-sip. Many of the systems provide means for operating a multitude of auxiliary functions - remote control, power recline, tape recorder, typing, etc., (see Easicorder p. 256 and Typing and Computer Interface p. 240).

(Information provided by David M. Bayer, Romich, Beery and Bayer, Inc.)



Photograph courtesy of Possum Controls, Inc.

DEVELOPER

Possum Controls, Inc.
11 Fairacres Industrial Estate
Windsor Berkshire
England

CONTACT PERSON

Ann F. Gurr
Possum, Inc.
P.O. Box 451
Midwood Station
Brooklyn, NY 11230
(212) 243-1658

WHERE IT IS USED

General Use

PROBLEM(S) IT OVERCOMES

restricted mobility

FIELD TESTED

yes

Britain

REGULATORY APPROVAL

FDA

WARRANTY PROVIDED

yes

FOR SALE

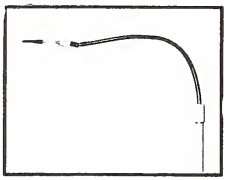
Possum, Inc.
P.O. Box 451
Midwood Station
Brooklyn, NY 11230

Price dependent on individual system requirements $400 - $7,000 range.

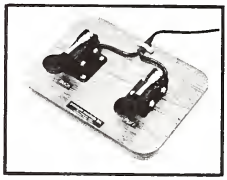
HOW IT WORKS

The system consists of an indicator panel, an electronic control unit and an operating switch which controls up to 11 functions in one or several rooms using one input. (See Possum™ Input Controls (p. 312) for types of input switches.) The indicator panel has 12 squares, one labeled 'start' and 11 labeled with the needed functions. Depressing the operating switch, (a microswitch controlled with a body part or a mouth controlled pneumatic flexitube), causes the white scanning light on the indicator panel to travel downward from the 'start' position then across the panel until the user stops the light at the selected function. The light will then return to 'start' and a red light will come on in the selected square and the function is activated (e.g. a lamp is turned on). The process is repeated to switch the activated function off. If a person moves to another room, all functions from the previous room are switched off and a new set of functions become controllable in the new room.

(Information based on Possum Controls, Inc. literature.)



Flexitube



Paddle Switches

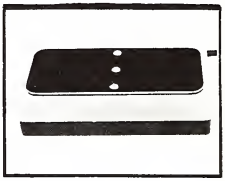
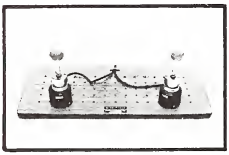


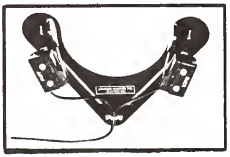
Plate Switch



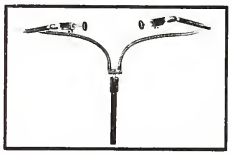
Wobblesticks

Spring Wobblesticks

Danavox Switch



Neck Halter



Bifurcated
Flexitube

Heavy Duty
Foot Switches

Photograph courtesy of Possum Controls, Inc.

POSSUM™ INPUT CONTROLS

DEVELOPER

Possum Controls, Inc.
111 Fairacres Industrial Estate
Windsor Berkshire
England

CONTACT PERSON

Ann F. Gurr
Possum, Inc.
P.O. Box 451
Midwood Station
Brooklyn, NY 11230
(212) 243-1658

WHERE IT IS USED

Operate Equipment

PROBLEM(S) IT OVERCOMES

controls operated by person's residual movements

FIELD TESTED

yes

Britain

REGULATORY APPROVAL

FDA

WARRANTY PROVIDED

yes

FOR SALE

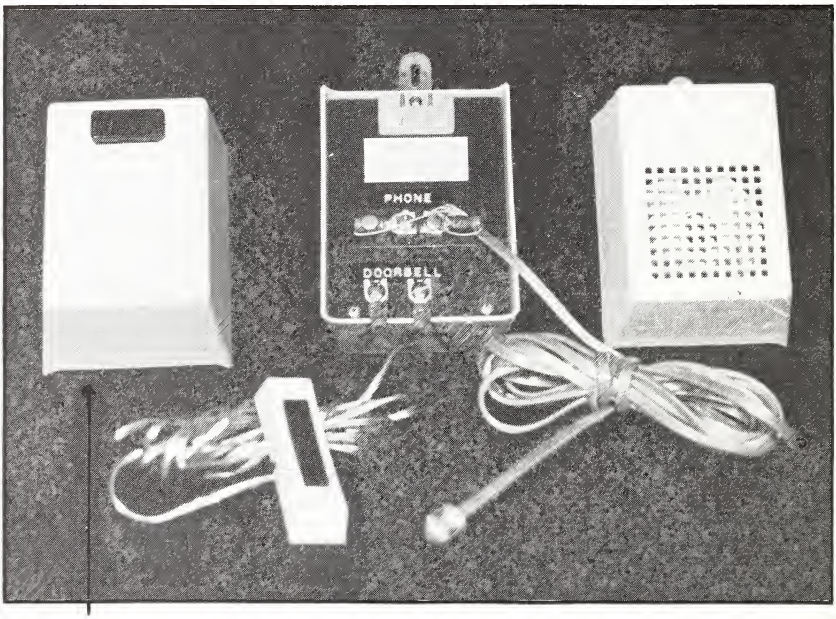
Possum, Inc.
P.O. Box 451
Midwood Station
Brooklyn, NY 11230

HOW IT WORKS

Flexitube on microphone stand - free standing, operated through pressure and suction equivalent to blowing bubbles or sucking a straw, can be mounted on bed or wheelchair.
Paddle Switches - light action microswitch with paddle lever mounted on a board or unmounted for special positioning.
Plate Switch - large contact area activated through light pressure to the surface which is divided in two, each half operating as a single switch. Single version also available.
Wobblesticks - operated by knocking them in any direction, useful for gross random movements. Spring Wobblesticks have springs along sticks' length to prevent injury.
Danavox Switch - used with hand or foot, needs harder pressure than other inputs.
Neck Halter - one or two light action microswitches mounted for chin operation, microswitch position individually adjustable.
Bifurcated Flexitube with microswitches on microphone stand - free standing, operated with side to side head movement, light action microswitches, single ones also available.
Heavy Duty Foot Switches - sturdy switches mounted on an angled bracket on a board for gross movement.

(Information based on Possum Controls, Inc. literature)

See Typewriter Control Systems (p. 650), Environmental Control (p. 310), Communicator (p. 164) and Page Turner (p. 568) for Possum systems using these inputs.



Switched Receptacle

Photograph courtesy of
Howard M. Haines

VISUAL DOORBELL/PHONE SIGNAL

DEVELOPER

Nationwide Flashing
Signals System
P.O. Box 6146
Silver Spring, MD 20906
(301) 593-2755

CONTACT PERSON

Howard M. Haines
Nationwide Flashing
Signals System
P.O. Box 6146
Silver Spring, MD 20906
(301) 593-2755 (voice)
(301) 593-2566 (TTY)

WHERE IT IS USED

Home Economics
Homemaking
Office Settings

PROBLEM(S) IT OVERCOMES

inability of a hearing impaired or deaf person to hear an audible signal

FIELD TESTED

yes

REGULATORY APPROVAL

UL; FCC

WARRANTY PROVIDED

yes

FOR SALE

Nationwide Flashing Signals System
P.O. Box 6146
Silver Spring, MD 20906

$98.95

HOW IT WORKS

When the doorbell or phone signal is activated, a transmitter will send a signal to the switched receptacle. The lamp (plugged into switched receptacle) in any room will flash to alert you to the phone ringing, no matter where the phone is. When the doorbell is ringing, it will flash in any room. Even if you are in bed, a bed vibrator (plugged into switched receptacle) will awaken you from either doorbell or phone signal. You can distinguish between the flashing codes representing the telephone and doorbell. No two flashing codes will be the same and no two switched receptacles will activate at the same time.

A switched receptacle can be moved from room to room. Or use as many switched receptacles as necessary to receive signals from one transmitter. It requires no wires for installation.

If you move to another town, you can take the entire system with you as easily as you installed it.

A USOC jack is provided by the telephone company. To connect the modular line cord clip into USOC jack, no tools are required.

Note: If your hearing-impaired neighbors in the same apartment building or on the same street wish to have independently operating systems, different channels should be ordered. Different channels will not interfere with similar units in the neighborhood. A single function product for either phone or doorbell is also available.

(Information based on company literature.)

FOOD PREPARATION

Electric Fry Pan Handle 318

Kitchen Aids 320

Potato Peelers 322

Photograph courtesy of
Adaptive Designs

ELECTRIC FRY PAN HANDLE

DEVELOPER

B. Portnoy Levine
Adaptive Designs
126 Knoll Drive
Hamden, CT 06518
(203) 288-2801

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Home Economics
Homemaking

PROBLEM(S) IT OVERCOMES

lack of fine fingertip control and or lack of finger strength

FIELD TESTED

information not available

REGULATORY APPROVAL

no

WARRANTY PROVIDED

no

FOR SALE

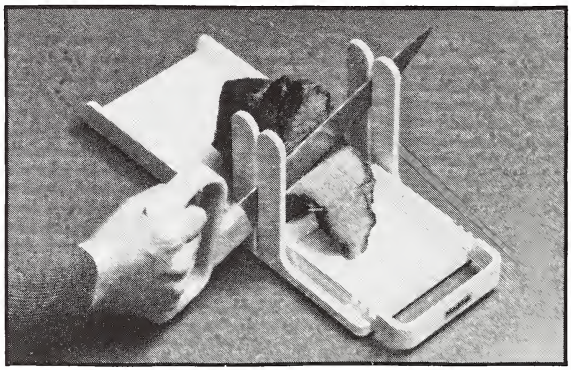
Adaptive Designs
126 Knoll Drive
Hamden, CT 06518

$25.00

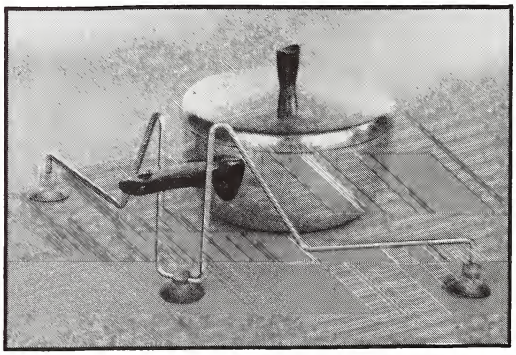
HOW IT WORKS

This handle attaches over the existing control knob of an electric fry pan (with a set screw it will fit a range of circular knobs from 1" D to 2" D). User grasps protruding rod and moves it concentrically to turn controls. The handle is transparent so fry pan on and off light remains visible. The entire arm can be used to turn the control with this handle.

(Information provided by B. Portnoy Levine.)



The Slicing Knife



The Pan Holder

Photographs courtesy of
Maddak, Inc.

DEVELOPER

Manufactured by:
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

CONTACT PERSON

Fred M. Joslyn
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

WHERE IT IS USED

Food Preparation
Home Economics
Homemaking

PROBLEM(S) IT OVERCOMES

lack of hand strength; loss of one hand

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

information not available

FOR SALE

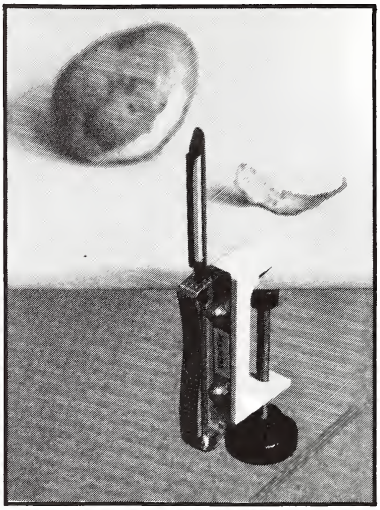
Maddak, Inc.
Pequannock, NJ 07440

Slicing Knife	$15.00
Pan Holder	$ 8.50

HOW IT WORKS

The Slicing Knife has a molded polypropylene saw-type handle which makes better use of hand strength and is more comfortable to use. The knife is tapered to a pointed end and is serrated along its length. The Pan Holder is an epoxy coated steel wire frame which attaches to the stove top by suction cups. Placing the handle of a cooking pot into the vertical slot keeps the pot from slipping during stirring operations. Contents can be stirred with one hand.

(Information based on Maddak Catalog No. 479, 1979.)



Potato Peeler

Hand Held Potato Peeler

Photographs courtesy of
Maddak, Inc.

POTATO PEELERS

DEVELOPER

Manufactured by:
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

CONTACT PERSON

Fred M. Joslyn
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

WHERE IT IS USED

Food Preparation
Home Economics
Homemaking

PROBLEM(S) IT OVERCOMES

lack of hand strength; loss of one hand

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

information not available

FOR SALE

Maddak, Inc.
Pequannock, NJ 07440

Potato Peeler	$10.80
Hand Held Potato Peeler	$ 5.25

HOW IT WORKS

The Potato Peeler is a double edged potato peeler mounted in a durable metal clamp for temporary attachment to a table top or cutting board. User holds the potato in one hand and slides it against the blade. The Hand Held Potato Peeler is a standard slot type potato peeler mounted in a bicycle-type handle with finger grip knobs. It has a resilient vinyl handle which provides a good grip.

(Information based on Maddak Catalog No. 479, 1979.)

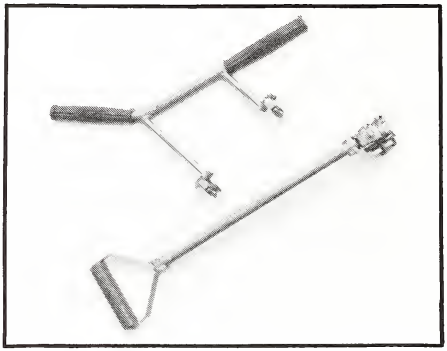
GARDENING

Back Preserver Tools 326

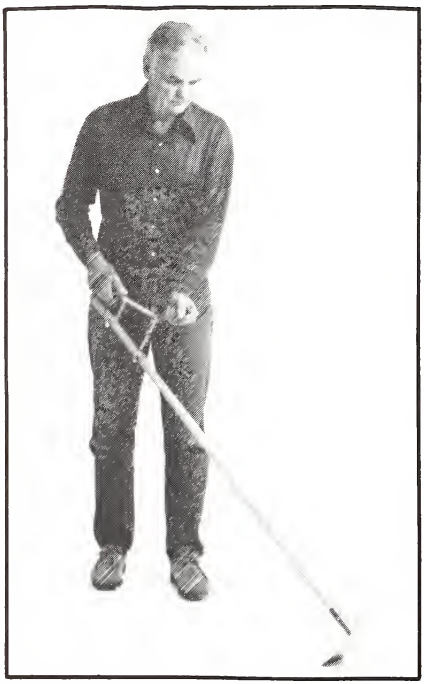
Earth Puncher and Spacer 328

Modified Hoe 330

Hoe Adapter
(top and left)



Shovel Adapter
(bottom and right)



Photographs courtesy of
Charles M. Searles

DEVELOPER

Charles M. Searles
Marco Products
1259 El Camino Real
Suite 202
Menlo Park, CA 94025
(415) 326-6997 (work)
(415) 325-6581 (home)

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Common Tools

PROBLEM(S) IT OVERCOMES

weak, or restricted back movement; excessive back strain

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

FOR SALE

Marco Products
1259 El Camino Real
Menlo Park, CA 94025

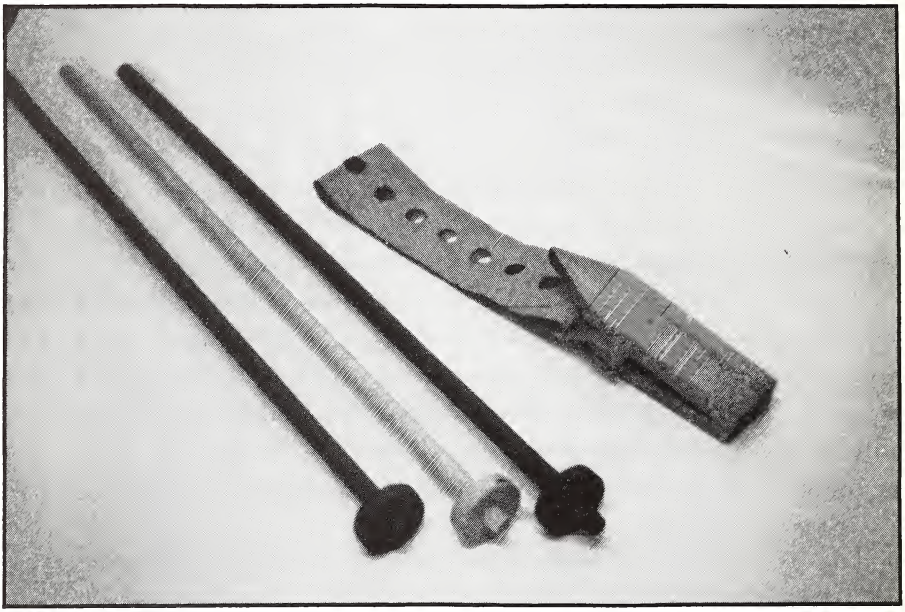
shovel, spade, or garden fork attachment	$19.85
hoe, rake, push broom, sponge mop attachment	$14.95

HOW IT WORKS

The shovel (spade, garden fork, etc.) attachment is connected in a way that enables it to swing in all directions making it easy to turn, swing or lift the tool. Digging or spading becomes much less tiring because the attachment, in effect, allows a person to hold the tool close to the weight without bending over. A simple twist of the wrist that holds the Back Preserver handle will cause the blade to dump its contents. It can be moved up or down the tool handle to adjust for height or removed to attach to another tool.

The hoe (rake, push broom, sponge mop, etc.) attachment is designed so that the constant upward and downward pressure that is normally associated with working these tools can be done while standing erect instead of stooping over in a tiring position. It also adjusts on the handle to compensate for height and can be moved to different tools.

(Information based on product news release.)



Photograph courtesy of
Dr. William H. Kern

EARTH PUNCHER AND SPACER

DEVELOPER

Kern-Wolf-McBride

CONTACT PERSON

Dan Brown
Spectrum Industries
131 N. Third Street
Terre Haute, IN 47809
(812) 238-1581

WHERE IT IS USED

Horticulture

PROBLEM(S) IT OVERCOMES

students with severe brain damage were found to be unable to use the hoe because they were unable to walk backwards; with these tools brain injured students can walk forward and prepare place for seeds

FIELD TESTED

yes

Terre Haute, IN

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

no

FOR SALE

Spectrum Industries
131 N. Third Street
Terre Haute, IN 47809

Earth puncher $2.60 each
Set of three $7.80

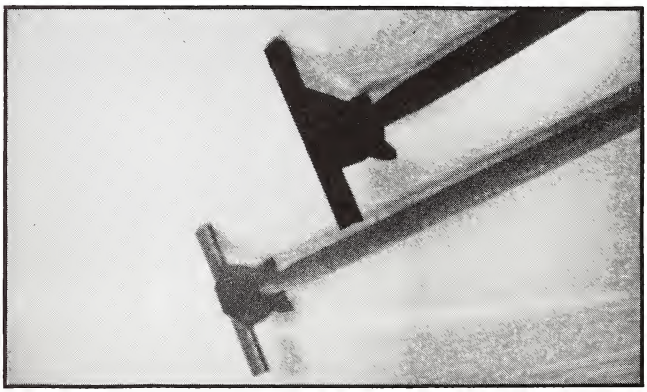
Seed spacer - 6 ft. long $3.00 each

HOW IT WORKS

Earth punchers - color coded green, yellow, red, have a guard and set screw which can regulate length of puncher which determines depth of hole for planting. With these tools it is unnecessary to use a hoe to make the trench. Hole is merely punched into the ground. (Meant to be used with seed spacer.)

A seed spacer is a strip of canvas suspended between two wooden stakes. Holes are punched in the canvas and when placed on the ground, the earth puncher is pushed through the holes to make holes for the planting of seeds at proper depth and spacing. Each spacer has holes at different distances such as one-half inch, one inch, two inches and so on.

(Information provided by Dr. William H. Kern.)



Photograph courtesy of
Dr. William H. Kern

MODIFIED HOE

DEVELOPER

Kern-Wolf-McBride

CONTACT PERSON

Dan Brown
Spectrum Industries
131 N. Third Street
Terre Haute, IN 47809
(812)238-1581

WHERE IT IS USED

Horticulture

PROBLEM(S) IT OVERCOMES

mentally retarded persons working in garden were unable to handle hoe to make trench to proper depth

FIELD TESTED

yes

Terre Haute, IN

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

no

FOR SALE

Spectrum Industries
131 N. Third Street
Terre Haute, IN 47809

Each	$15.80
Set of three - 1/2", 1", 2"	$47.40

HOW IT WORKS

Hoes are modified so no sharp edges are present. Hoes are color coded so that green hoe has guard one-half inch from end of blade, yellow hoe has guard two inches from end of blade. Mentally retarded students are taught to use hoe to make trenches by always sinking the blade up to the guard, thus by controlling which hoe students use the depth of trench can be controlled.

(Information provided by Dr. William H. Kern.)

GENERAL

Accru-Hook™ 334

Audicator with Accessories 336

Bookshelf, Sliding 338

Circular Lazy-Susan for Looseleaf Notebooks 340

Collapsible Lap Tray 342

File Tray, Quad-Operational 344

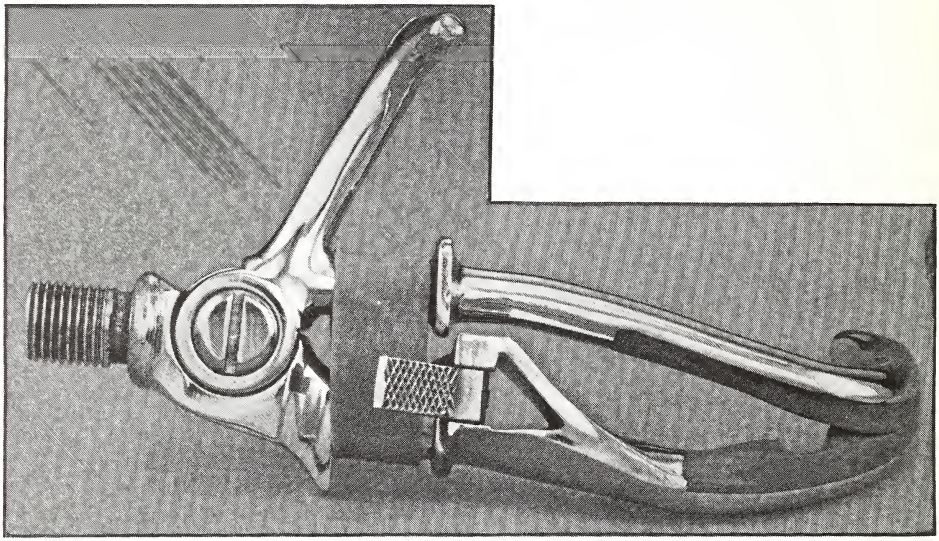
Heyer-Abadie "Talking" Mouthstick . . 346

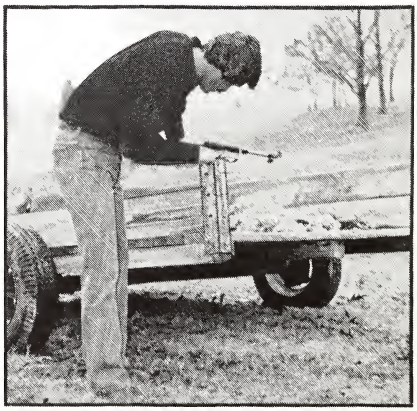
Prehensile Hand 348

Wheelchair Tray 350

Wheelchair Tray 352

Width Varying Device for Wheelchairs 354





Photographs courtesy of
M-W Enterprises, Inc.

ACCRU-HOOK™

DEVELOPER

Co-Inventor:
Jerry Whitehead
P.O. Box 121
Kellwood Drive
Trenton, TN 38382

CONTACT PERSON

Jun. K. Wong
Managing Director
M-W Enterprises, Inc.
P.O. Box 121, Kellwood Dr.
Trenton, TN 38382
(901) 855-0222

WHERE IT IS USED

Agriculture
Construction
Machine Trades
and others

PROBLEM(S) IT OVERCOMES

hand or arm amputation

FIELD TESTED

yes

REGULATORY APPROVAL

yes

Veteran's Administration of the U.S. and Canada

WARRANTY PROVIDED

yes

FOR SALE

M-W Enterprises, Inc.
P.O. Box 121, Kellwood Drive
Trenton, TN 38382

Accru-Hook	$110.00
Universal Adapter	$9.00

HOW IT WORKS

The Accru-Hook contains a triangular hole in the fixed lower finger of the prosthesis. A separate, matching adapter is permanently attached to each tool to be used by the amputee. To pick up the tool, one merely slides the Accru-Hook onto the adapter. A simple locking lever secures the Accru-Hook to the tool and provides a drop-proof method of holding cameras, guns and other delicate equipment. It is made of 17/4 PH stainless steel, weighs 7 ounces, and has a tensile strength in excess of 120,000 PSI. The fingers are lined with Hypalon rubber and the base is threaded ½"-20. The hook is available in both right and left hand models.

(Information based on M-W Enterprises, Inc. literature.)

AUDICATOR WITH ACCESSORIES

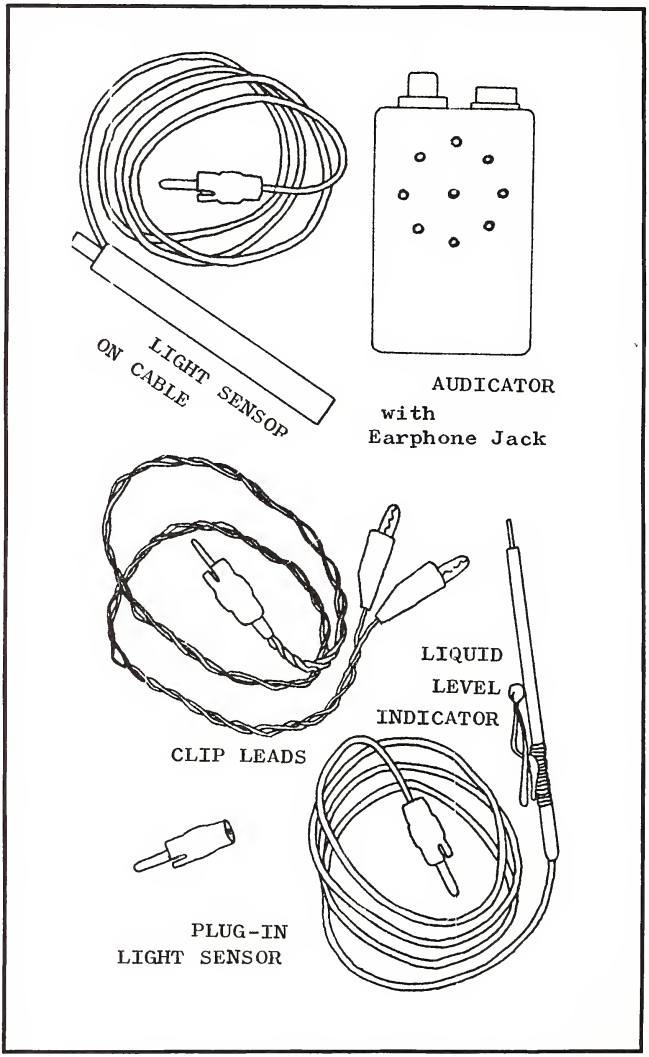


Illustration courtesy of
Science for the Blind
Products

AUDICATOR WITH ACCESSORIES

DEVELOPER

CONTACT PERSON

Tom Benham
Science for the Blind
Products
Box 385
Wayne, PA 19087
(215) 687-3731

WHERE IT IS USED

Business
Home
Lab Work

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

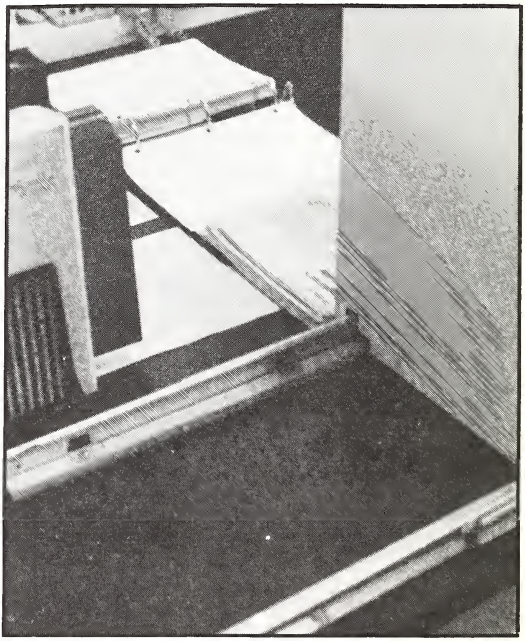
FOR SALE

Science for the Blind Products
Box 385
Wayne, PA 19087

HOW IT WORKS

Various accessories are used with a sound source housed in a small box to perform a number of different operations:
Liquid Level Indicator - for pouring to a pre-set level. 2 probes are available, 4" long and 10" long.
Clip Leads - checks electronic components, fuses, light bulbs, electrical appliances and circuits.
Plug-in Light Sensor - for checking light sources from a distance.
Light Sensor on Cable - for monitoring telephone lights and other lights.
An earphone jack is built into the Audicator to provide operation inaudible to others in the room.

(Information based on Science for the Blind literature.)



Photographs courtesy of
Don Simms

BOOKSHELF, SLIDING

DEVELOPER

Don Simms, Counselor
2125 S.W. 4th Avenue
Suite 514
Portland, OR 97201
(503) 229-5906

CONTACT PERSON

Same as Developer

WHERE IT IS USED

General Use

PROBLEM(S) IT OVERCOMES

difficulty experienced by people with limited hand functioning and or limited reaching ability; limited strength and weak grip in using heavy books conveniently

FIELD TESTED

yes

REGULATORY APPROVAL

no

WARRANTY PROVIDED

no

FOR SALE

no

HOW IT WORKS

Bookshelf is built by carpenter to specifications of the job, i.e. specific needs for shelf sizes and number of shelves; size of desk, weight of shelf and contents need to be taken into account. The bookshelf is mounted on two "accuride" drawer "slides" (similar to those used in file cabinets. These can be found in builders' hardware stores and catalogs). The "slides" are secured to desk via bolts and the bookshelf "fitted" onto the slides. It is important to double check the stress on the "slides" when bookshelf is extended and to block off to prevent from extending out too far. The total cost for production - $75-100.

(Information provided by Don Simms.)

Photograph not available

CIRCULAR LAZY-SUSAN FOR LOOSELEAF NOTEBOOKS

DEVELOPER

3M Company
Maintenance Staff
St. Paul, MN 55101

CONTACT PERSON

information not available

WHERE IT IS USED

Bookkeeping

PROBLEM(S) IT OVERCOMES

limited use of hands and arms to reach over extended areas

FIELD TESTED

not applicable

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

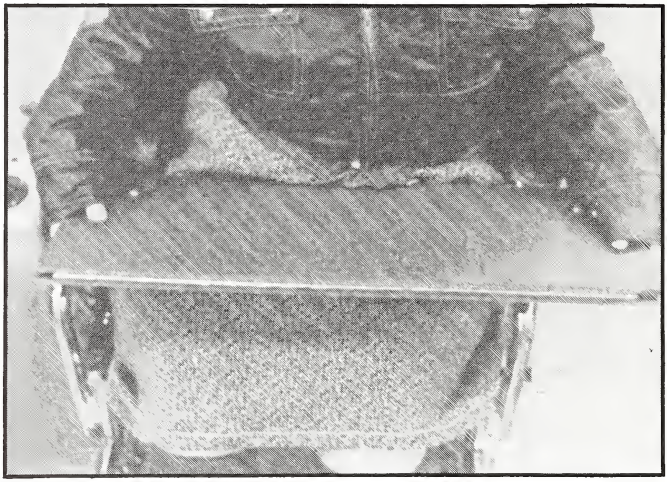
FOR SALE

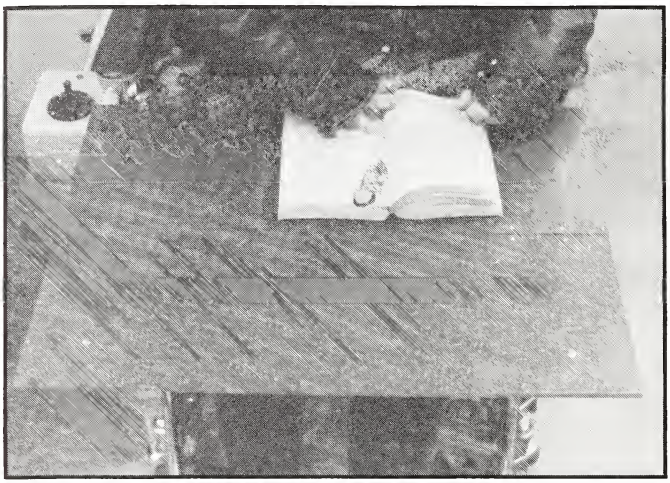
May be made at a minimal cost.

HOW IT WORKS

Developed for an employee who is partially paralyzed and has limited use of both arms, the lazy-susan has clips which hold books upright or can be easily removed as needed by co-workers. While a book is still engaged on the lazy-susan the user can tilt it to a convenient opening and close the book with one hand when no longer in use.

(Information provided by Paul C. Ashton, 3M.)





Photographs courtesy of Bob Warren

COLLAPSIBLE LAP TRAY

DEVELOPER

Bob Warren J.A.
United Cerebral Palsy of Akron
318 Water Street
Akron, OH 44308
(216) 376-6041

CONTACT PERSON

Same as Developer

WHERE IT IS USED

General Use

PROBLEM(S) IT OVERCOMES

inconvenience of transporting and locating file drawers and other reference material

FIELD TESTED

yes

United Cerebral Palsy - Akron, OH

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

not applicable

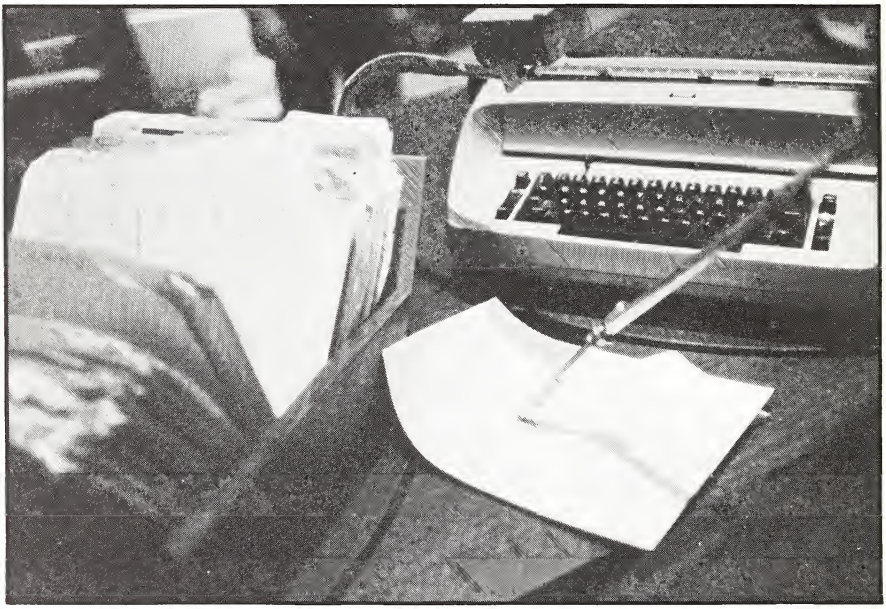
FOR SALE

no

HOW IT WORKS

The device is a collapsible lap tray, designed for simple access and easy storage on the rear of a wheelchair. It is light, attaches easily to the arms on the sides of a wheelchair, yet is strong enough to support steel file card drawers and other reference material. The design of the tray also permits access through doorways and aisleways.

(Information provided by Bob Warren, UCP.)



Photograph courtesy of
Arthur Heyer

FILE TRAY, QUAD-OPERATIONAL

DEVELOPER

Arthur Heyer
Extensions for Independence
P.O. Box 3754
Downey, CA 90242
(213) 862-2704

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Filing

PROBLEM(S) IT OVERCOMES

inability to file and retrieve papers

HOW IT WORKS

It carries an eight inch stack of folders or papers. It has slanted sides so that a folder can remain open by itself at any location in the stack of material. The front of the tray is open in order to give easy access to a mouthstick user.

(Information based on Extensions for Independence literature.)

FIELD TESTED

yes

personal use for three years; currently used by 10 other quadriplegics

REGULATORY APPROVAL

information not available

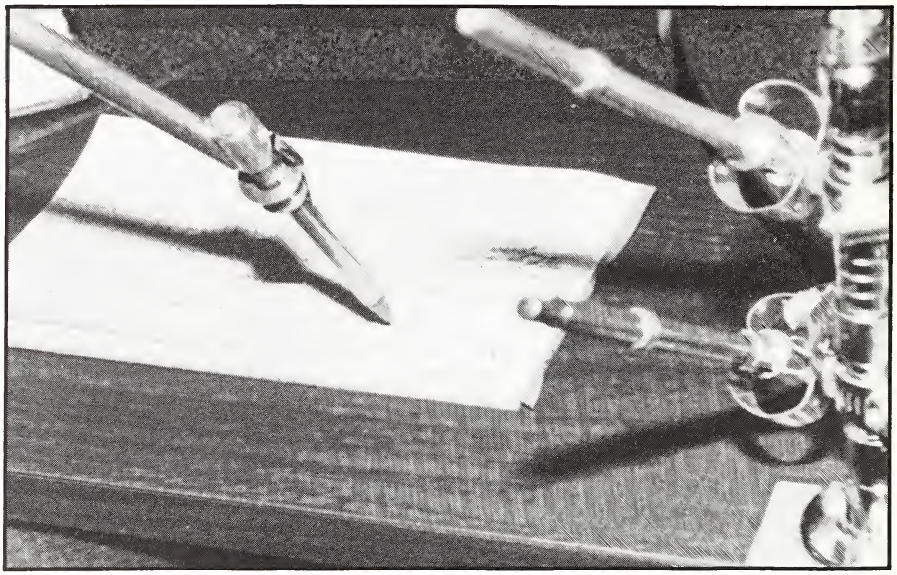
WARRANTY PROVIDED

yes

FOR SALE

Extensions for Independence
P.O. Box 3754
Downey, CA 90242

$39.00



Photographs courtesy of
Arthur Heyer

HEYER-ABADIE "TALKING" MOUTHSTICK

DEVELOPER

Arthur Heyer
Chester Heyer
Henry Abadie
Extensions for Independence
P.O. Box 3754
Downey, CA 90242

CONTACT PERSON

Arthur Heyer
Extensions for Independence
P.O. Box 3754
Downey, CA 90242
(213) 862-2704

WHERE IT IS USED

Manipulate other objects

PROBLEM(S) IT OVERCOMES

difficulty or inability to write, type, use the phone, etc.

FIELD TESTED

yes

fourteen years of personal use

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

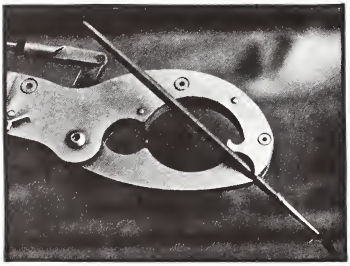
Extensions for Independence
P.O. Box 3754
Downey, CA 90242

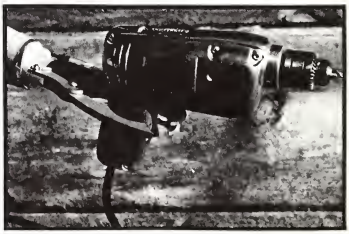
Basic Unit: $60.00
Complete Kit: $240.00
Custom Made by Mail

HOW IT WORKS

It is called a "talking" mouthstick because it has a "V" shaped and flat mouthpiece which allows the user to both talk and swallow while holding it with the teeth. Different shafts can be attached to the mouthpiece. Basic unit consists of a custom fitted mouthpiece and a lightweight aluminum tube with a rubber tip. The tube can be adjusted within a range of 2" by an attendant. A more sophisticated mouthstick shaft is also available. It allows the user to interchange tools independently. The complete kit contains the basic unit, a shaft with an interchangeable tool mechanism, three tools (pen, pencil and hook for pulling objects), three attachments to change the function of the tools, and a locking mechanism to enable independent tool changing.

(Information based on Extensions for Independence literature.)





Photographs courtesy of
Therapeutic Recreation Systems,
Inc.

PREHENSILE HAND

DEVELOPER

Robert Radocy
1280 - 28th, Suite 4
Boulder, CO 80303
(303) 444-4720

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Agriculture
Construction
Machine Trades
and others

PROBLEM(S) IT OVERCOMES

no upper limb; inability to use tools without adaptors; lack of capacity for vigorous, strenuous upper extremity activity using standard hook

FIELD TESTED

yes

REGULATORY APPROVAL

FDA

WARRANTY PROVIDED

yes

FOR SALE

Therapeutic Recreation Systems, Inc.
1280 - 28th, Suite 4
Boulder, CO 80303

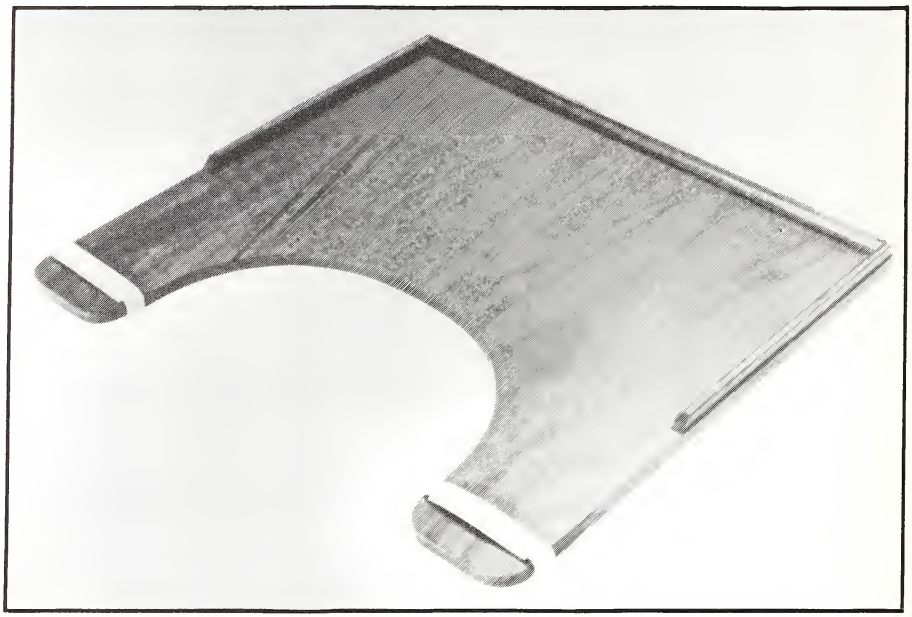
$539.00

or contact local prosthetist

HOW IT WORKS

Muscle powered, this device is a complete hand replacement (not applicable for persons with a partial hand amputation), which is like the functional action of a human thumb and forefingers. The Hand's thumb operates with a positive voluntary closing action enabling the user to control the amount of force exerted to tighten the cable which activates the thumb. It is suggested that the locking pawls, which are manually engaged, be used for specialized activities only. By consciously gripping objects the user makes use of biofeedback which is lost when locking device is activated. The photographs on the opposite page depict activities accomplished without the locking device.

(Information based on Therapeutic Recreation Systems, Inc. literature.)



Photograph courtesy of Bailey
Manufacturing Co.

WHEELCHAIR TRAY

DEVELOPER

Bailey Manufacturing Co.
118 Lee Street
Lodi, OH 44254
(216) 948-1080

CONTACT PERSON

Adelle
Bailey Manufacturing Co.
118 Lee Street
Lodi, OH 44254
(216) 948-1080

WHERE IT IS USED

General Use

PROBLEM(S) IT OVERCOMES

work surface for a wheelchair bound person

FIELD TESTED

yes

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

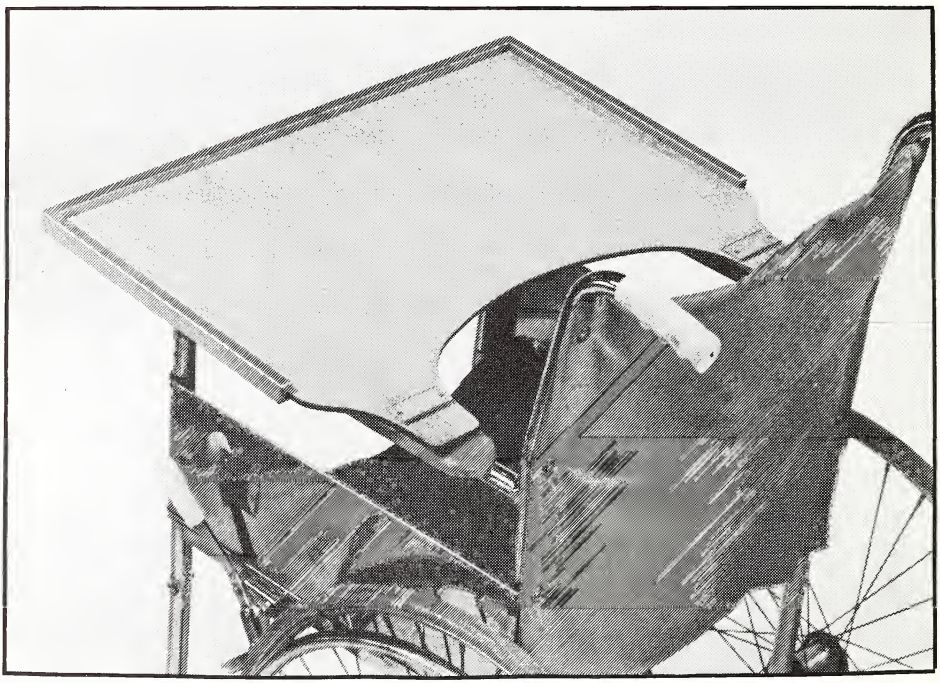
Bailey Manufacturing Co.
118 Lee Street
Lodi, OH 44254

$29.00

HOW IT WORKS

This tray with a 1/2" rim fits all sizes of wheelchairs. It is plastic, 21 1/2" deep, 23 1/2" wide with a 14 1/2" x 8 3/4" cut out. Also available is a tray 18" deep, 21" wide with a 12 1/2" x 7 1/2" cut out.

(Information based on Bailey catalog no. 0583 April 1, 1979.)



Photograph courtesy of Hausmann Industries

WHEELCHAIR TRAY

DEVELOPER

Hausmann Industries
130 Union Street
Northvale, NJ 07647
(201) 767-0255

CONTACT PERSON

Rose Rowan
Advertising Manager
Hausmann Industries
130 Union Street
Northvale, NJ 07647
(201) 767-0255

WHERE IT IS USED

General Use

PROBLEM(S) IT OVERCOMES

work surface for a wheelchair bound person

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

yes

FOR SALE

Hausmann Industries
130 Union Street
Northvale, NJ 07647

$29.80

HOW IT WORKS

This rimmed tray fits all wheelchairs having full length or desk type arms. The chair can be propelled with the tray in position. It is 18" deep, 24" wide and has a 15½" x 5½" cut out.

(Information based on Hausmann catalog.)

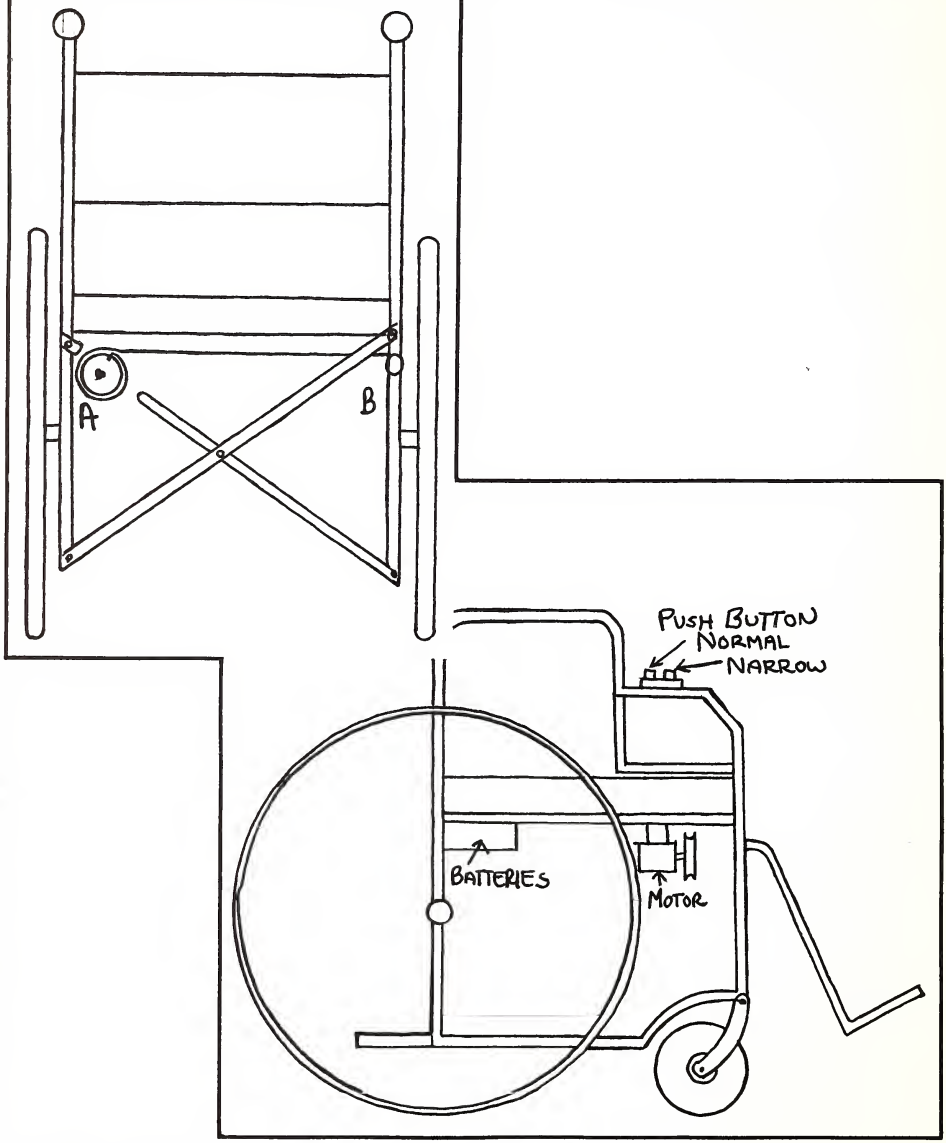


Diagram courtesy of F. Volin

WIDTH VARYING DEVICE FOR WHEELCHAIRS

DEVELOPER

F. Volin
3221 Quitman Street
Cola, SC 29204
(803) 787-6248

CONTACT PERSON

Same as Developer

WHERE IT IS USED

General Use

PROBLEM(S) IT OVERCOMES

getting through 24" door openings

FIELD TESTED

no

REGULATORY APPROVAL

information not provided

WARRANTY PROVIDED

no

FOR SALE

May be made at a minimal cost.

HOW IT WORKS

This device can be mounted onto any size wheelchair without interfering with the collapsing of the chair. It can be installed for left or right hand use and only two fingers are needed to activate the switch.

A geared low speed DC motor is mounted on one side of the chair frame, (A in the diagram). A strap, belt or rope is attached to the opposite side of the chair frame, (B in the diagram), and to the motor pulley. Pressing the narrowing button applies power from the small sealed battery pack to the motor whose pulley will rotate in such a direction as to take up the slack in the strap, thus narrowing the chair. A limit switch will stop the motor at a predetermined chair width. Pressing the normal button reverses the motor direction and restores the strap and chair to its original width. The limit switch will stop the motor.

Other devices which have been developed are a curb hopper and a variable seat position device.

(Information provided by F. Volin.)

HEALTH

Aud-A-Mometer 358

Aud-A-Val 360

Char-Mag Syringe Magnifier 362

Sphygmomanometer with Stethoscope 364

Thermovoice Talking Thermometer 366

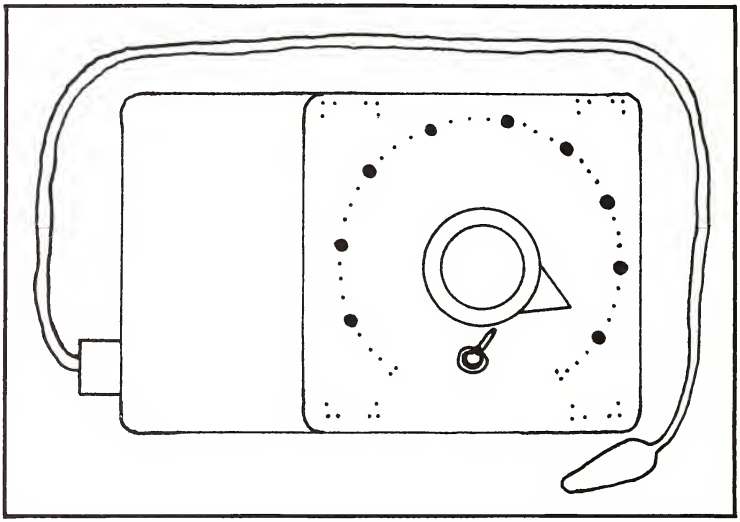


Illustration courtesy of
Science for the Blind
Products, redrawn by
Terri Bleck, WVSC

AUD-A-MOMETER

DEVELOPER

CONTACT PERSON

Tom Benham
Science for the Blind
Products
Box 385
Wayne, PA 19087
(215) 687-3731

WHERE IT IS USED

Health
Lab Work
Temperature Measurement

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

Science for the Blind Products
Box 385
Wayne, PA 19087

Clinical - $100.00
Laboratory - $100.00
Weather - $115.00

HOW IT WORKS

The Aud-A-Mometer has a stainless steel probe on the end of a flexible cable which can be placed wherever the temperature is to be measured. A tone is balanced to zero (no sound) by turning a knob on a small box and taking the reading on a braille scale under the knob. Temperature ranges from 95° - 110° F (or 35° - 43° C) on the clinical thermometer, -10° - +110° C on the lab thermometer, and -30° - 110° F on the weather thermometer. Special ranges can be provided upon request. Accuracy ranges from ±.1° to ±1°.

(Information based on Science for the Blind literature.)

Photograph not available

DEVELOPER

CONTACT PERSON

Tom Benham
Science for the Blind
Products
Box 385
Wayne, PA 19087
(215) 687-3731

WHERE IT IS USED

Health
Wherever an interval needs to be timed

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

information not available

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

Science for the Blind Products
Box 385
Wayne, PA 19087

$95.00

HOW IT WORKS

The Aud-A-Val is an audible interval timer. It was originally designed to help a doctor count pulses. Within a set time period after pressing the activating button, the unit will emit a short burst of sound. A selector switch allows choice of 15, 30 or 60 second intervals. Other interval selections can be provided on request at additional cost.

(Information based on Science for the Blind literature.)

CHAR-MAG SYRINGE MAGNIFIER

Photograph not available

CHAR-MAG SYRINGE MAGNIFIER

DEVELOPER

CONTACT PERSON

Alex H. Townsend
American Foundation for the Blind
15 West 16th Street
New York, NY 10011
(212) 620-2169

WHERE IT IS USED

Health

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

yes

by panels of blind and visually impaired persons

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

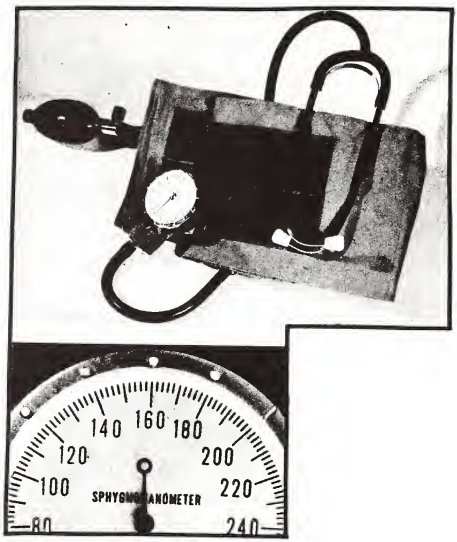
American Foundation for the Blind
15 West 16th Street
New York, NY 10011

$5.00

HOW IT WORKS

This syringe magnifier allows full view of syringe calibrations. It is easy to snap on and off and is made for B-D and Monoject 100 disposable syringes. It can also be adapted for use with the B-D low dose syringe by placing a rubber band around the Magnifier and the syringe just below the flange. It can be flipped over after the syringe is filled and used as a stand. It is made of durable, optical plastic.

(Information provided by Karen B. Sussman, American Foundation for the Blind.)



Photograph courtesy of
American Foundation for
the Blind

SPHYGMOMANOMETER WITH STETHOSCOPE

DEVELOPER

CONTACT PERSON

Alex H. Townsend
American Foundation for the Blind
15 West 16th Street
New York, NY 10011
(212) 620-2169

WHERE IT IS USED

Health

PROBLEM(S) IT OVERCOMES

visual impairment

HOW IT WORKS

This device is of the aneroid type with 300mm scale. It has a Bowles-type stethoscope attached as well as a velcro self-closing cuff. The glass is removed from the pressure gauge and raised dots are placed around the edge of each 20mm pressure. Notches are filed at each 100mm. The needle is bent up to permit easy reading. A lens cover is provided to protect the instrument when not in use.

(Information based on American Foundation for the Blind literature.)

FIELD TESTED

yes

by panels of blind and visually impaired persons

REGULATORY APPROVAL

information not available

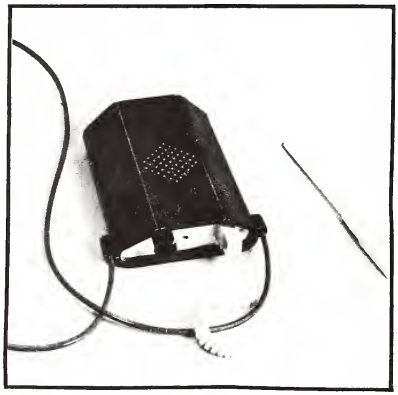
WARRANTY PROVIDED

information not available

FOR SALE

American Foundation for the Blind
15 West 16th Street
New York, NY 10011

$48.00



Photograph courtesy of
American Foundation for
the Blind

THERMOVOICE TALKING THERMOMETER

DEVELOPER

American Foundation for the Blind
15 West 16th Street
New York, NY 10011

CONTACT PERSON

Alex H. Townsend
American Foundation for the Blind
15 West 16th Street
New York, NY 10011
(212) 620-2169

WHERE IT IS USED

Health
Home Economics
Homemaking
Lab Work
Temperature Measurement

PROBLEM(S) IT OVERCOMES

visual impairment

FIELD TESTED

yes

by panels of blind and visually impaired persons

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

information not available

FOR SALE

American Foundation for the Blind
15 West 16th Street
New York, NY 10011

$184.50

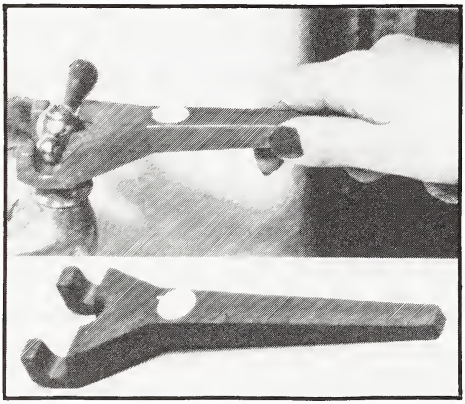
HOW IT WORKS

This talking thermometer features high quality synthesized speech. Using alternative probes, it functions as a clinical thermometer (either oral or rectal), as an indoor or outdoor thermometer and as a cooking thermometer. The clinical probe is plastic with a smooth-edged metal tip and is accurate to within 1/10°. It measures from -25°F to 250°F (-32°C to 204°C). The high heat probe (optional) is used for temperatures from 250°F to 400°F. The on/off switch, volume control, earphone plug, and special switch for clinical use are all marked in braille. Size: 5½" x 3 3/8" x 1 3/8".

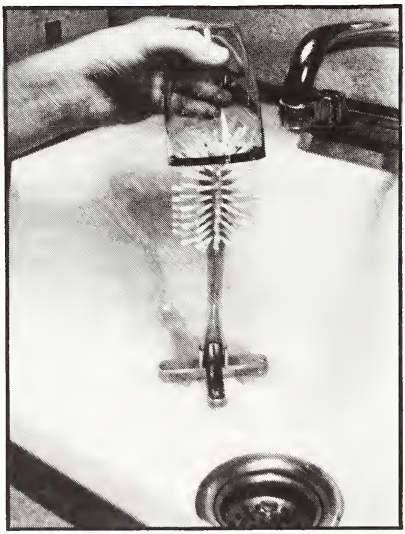
(Information based on American Foundation for the Blind literature.)

KITCHEN WORK

Kitchen Aids 370



Easiturn Faucet Handles



The Dish Brush

Photographs courtesy of
Maddak, Inc.

DEVELOPER

Manufactured by:
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

CONTACT PERSON

Fred M. Joslyn
Maddak, Inc.
Pequannock, NJ 07440
(201) 694-0500

WHERE IT IS USED

Kitchen Work

PROBLEM(S) IT OVERCOMES

lack of hand strength or coordination

FIELD TESTED

information not available

REGULATORY APPROVAL

not applicable

WARRANTY PROVIDED

information not available

FOR SALE

Maddak, Inc.
Pequannock, NJ 07440

Faucet Handles	$ 7.50 pr.
Dish Brush	$12.00

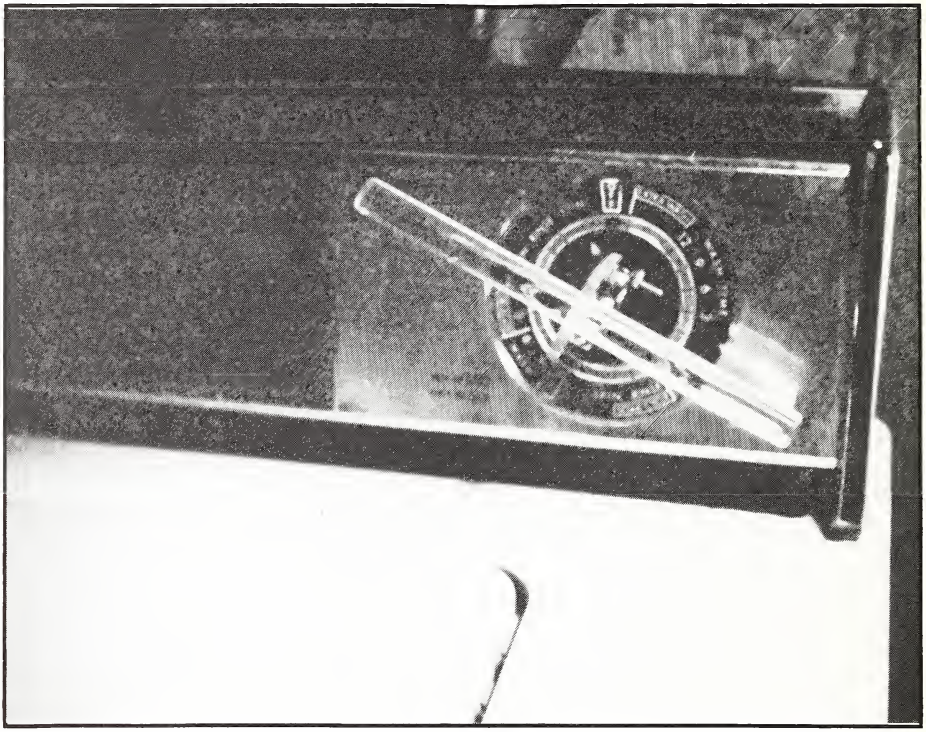
HOW IT WORKS

The Easiturn Faucet Handles are rigid plastic handles 7" long which attach to cross type faucet knobs. The handles attach to the faucet knobs without use of tools and make operation easy because of extra leverage using hand or elbow. They are supplied in sets of two, one red, one blue--each has a braille symbol to denote hot or cold. The Dish Brush is a nylon bristle brush with strong plastic handle mounted in a stainless steel holder. The holder has 3 suction cups for mounting on sink or counter top.

(Information based on Maddak Catalog No. 479, 1979.)

LAUNDERING

Washing Machine and Dryer Handle 374



Photograph courtesy of
Adaptive Designs

WASHING MACHINE AND DRYER HANDLE

DEVELOPER

B. Portnoy Levine
Adaptive Designs
126 Knoll Drive
Hamden, CT 06518
(203) 288-2801

CONTACT PERSON

Same as Developer

WHERE IT IS USED

Washing clothes

PROBLEM(S) IT OVERCOMES

lack of fingertip strength to turn or pull out a conventional knob

FIELD TESTED

yes

REGULATORY APPROVAL

information not available

WARRANTY PROVIDED

no

FOR SALE

Adaptive Designs
126 Knoll Drive
Hamden, CT 06518

$20.00

HOW IT WORKS

The handle bolts onto protruding section of existing knob. Two holes must be drilled into existing handle to match the handle we provide. The user can grab our handle with both hands and use strength in arms and upper torso to turn the handle around as well as pull it out or push it in. This adaptation will fit any control knob with a perpendicular protrusion which can be drilled and bolted into.

(Information provided by B. Portnoy Levine.)

6/29/2012
T 2653095 3
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HF GROUP - IN